



A Framework of an Interior Design Work Delivery Process

Arniatul Aiza Mustapha¹, Mohamad Fadhil Mohamad², Nur Maizura
Ahmad Noorhani^{3*}

^{1,3}Centre of Studies in Interior Architecture, Faculty of Architecture, Planning and Surveying,
Universiti Teknologi MARA Selangor, Campus Puncak Alam,
42300 Bandar Puncak Alam, Selangor, Malaysia

²Centre of Studies in Quantity Surveying, Faculty of Architecture, Planning and Surveying,
Universiti Teknologi MARA, 40000 Shah Alam, Malaysia

*Corresponding Author

DOI: <https://doi.org/10.30880/ijscet.2021.12.03.031>

Received 22 May 2021; Accepted 15 October 2021; Available online 2 December 2021

Abstract: Despite their minor position within the architectural industry, interior designers play a significant role in the national economy. In compliance with the Architect Rule, the present Interior Design Institution (MIID) in Malaysia is governed by the LAM. The interior designers are keen to comply effectively with this new legislation in the interior design. The interior design process is somewhat close to the architecture process, which typically consists of three key phases of the entire design. The interior design professionals carry out interior design work in accordance with the case and practice the principles in their own way and in their own structures. This leads to the variety of stages, processes and work structures that pose problems, consequences and impacts for stakeholders, in particular the client and the interior designer themselves. This helps the workflow and the interior project delivery process to be streamlined. The objectives are to determine the flow, process, scope and elements of the indoor project delivery practice, to make the scope and elements of the indoor project delivery work process compatible with the other work practice plan, as well as to make a proposal on the indoor design work development plan. The qualitative approach to the research involves the use of systematic literature review, content analysis on interior design, project process practice from approved documentation and related documents, and a series of interviews with members of the interior project team and stakeholders, triangulation and confirmation. This analysis will provide useful information to the client, interior designers themselves and those involved in the project. The IDWDP framework may eliminate job interruptions, task management, clashing of works, and coordination of work.

Keywords: Interior design, interior design project practice, interior design project delivery, interior design scope of work, interior design work development plan

1. Introduction

Interior design is part of architectural works and falls within the framework of the architecture, engineering and construction (AEC) sector. Essentially, interior design project function is very close to that of architecture. It is clear that architecture and interior design are complementary to each other. Architecture works, therefore, consisting of the structure of the buildings, while interior design focuses more on the interior spaces. By default, the interior design job project faces multi-segment phases and work processes, while it is regarded as a minor player in the AEC industry (Guerin, 2010). The role of interior designers is very demanding, significant and critical (Martin, 2004; Guerin, 2010).

Normally, the life cycle of the project in development requires team players for the project. In normal terms, it includes clients, designers, materials and vendors, contractors, craftsmen and skills in a small size interior design project (according to the project). Architect, mechanical and electrical (M&E) engineer, a quantity surveyor for an interior design project, are players who may be participating in a larger project, usually for new or entirely refurbished work requiring

*Corresponding author: nmaizura@uitm.edu.my

structural work. The knowledge and skills are crucial in this type of business. Having expertise, skills and abilities in managing projects and team motivations, skills of dedication, awareness of ethical issues, coordination, communication and negotiation as well as decision making skills are all important in interior design projects.

Interior design job scope not only limited to spatial specialities, it is prior to serves client's needs and requests that involve the much-maligned act of decoration (Dodsworth and Anderson, 2015; Anderson, 2007), including furniture design, kitchen design, merchandising design, and in fact the job scope can go beyond to a product design like a sculpture, lighting and many more, which this referring to the designers' passion. Here interior designers can be described as having a sensitive impact on each detail of the space. In building industry, the interior design practices are important and the professionalism of interior designers ensures that the preferred spatial identity of a client is established. The interior designer's job is therefore only a part of the architectural scope of work. However, the role and duties of an interior designer in creating the brand image and reputation of the client become important in the identification of the interior of the building through the fulfilment of the mandate. Interior Designers are responsible for producing the best and most practical designs in a well-designed environment, with skills and management techniques (Noorhani, 2016) which can be described as a 'Master of Space' by then (Mustapha, 2019).

Questions were presented to the interior design industry at the very early stage of the investigation. Do interior designers follow any ethical guideline while doing interior design project? Are there any problems with the phase or implementation of the project? The purpose of this study is therefore to establish the workflow and method for the delivery of the interior design. While the objectives of these studies are to evaluate the flow, procedure, phases and elements of the interior project delivery practise, to ensure that the scope and elements of the interior project delivery work process are compatible with the other work practice plan, and to make a recommendation on the interior design work development plan.

2. Issues in Interior Design Project Delivery

Prior to the desired spatial identification of the consumers, efficient execution of interior projects is a critical feature of the profession as well as in the construction industry. Interior design is claimed as part of the architectural industry, but the presence and significance of it has not been clearly indicated in the wheel of the Architectural, Engineering and Construction Industry (AEC), although the profession is much closer to its clients. As completion of construction projects, interior design work is said. To this end, Wright (2006) has supposed that construction projects are growing, and that their difficulty involves numerous practitioners and specialists; in addition, the demand of the market has been challenged for the interior design profession. He argued that while different experts in the built environment have carried out the mission, they can often overlap, their education, expertise, training and training skills being different from the practise of interior design. In order to provide the preferred spatial identity with proper security of their health, comfort and safety, it stated the client should understand these differences (Wright, 2006). This paper explains how works can overlap, clash, and expose their shortcomings in the absence of proper structures, processes, and tools for proper handling and communication.

A preliminary survey was undertaken at the early stage of the study. The purpose of the investigation is to capture the phenomena of the interior design market, which focuses on the concerns and problems of the interior design project. The described variables or problems, as specified by the literature, are invisible. The important variables in the interior project implementation practise include the SOW (scope of work), teamwork, collaboration, technical expertise, project management, which the respondents have also listed. In the preliminary survey, the key problem in an interior design project is the lack and conflict of SOW. The lack of SOW and procedures has been the most critical problems for interior designers, while the lack of information about project management has been a source of conflicts between the design and construction processes by interior designers.

3. Literature Review

3.1 Interior Design Projects

The high demand for interior design projects in the industry may lead the owner and designer to use the most suitable project delivery process. In the light of the specifications for interior design projects, interior designers can carefully choose and properly assess the types of delivery projects that they will pursue. For interior design and project execution, the same approach applies. The same technique. However, the project method of delivery somehow represents the acquisition and contract framework depending on the decision of the owner to select the best way to deliver the project to their project with regard to time, cost and quality driving values. Generally, there are three phases for the delivery of the interior design project such as design – construction/installation – post construction/installation. Mentioned in Project Management Body of Knowledge (PMBOK) (2017) process group states for initiating and planning; executing, monitoring and controlling; and closing. Four practices of interior schemes, including new work, refurbishment, reconstruction and conservation, were usually carried out in Malaysia.

Four kinds of ID works for new works are available:

1. Interior designer who is joined with an architect (project manager) at the beginning or initial stage of the project;
2. Work on the interior design begins after architect's design;
3. Interior Design Work Entrance After Architect Complete Design and Start Building Structure
4. The interior design entry works after the building has been designed.

While design and construction is becoming increasingly common in Malaysian practice. Procurement Cloud (2021) denotes procurement is a method to streamline any purchase process and achieve desired results while saving money, time, and building mutually beneficial relationships with suppliers, a high degree of quality both in design and construction. Many architects do interior works nowadays. There can arise questions; are architects ample time to carry out such a thorough task when performing other, bigger tasks simultaneously? How do an interior designer and an architect differ? The nature of the work is obviously quite different, but still related. It has been said that there are principles that are the bedrock of every career for each respective discipline. In addition, the knowledge is understood to be routinely practiced by improvising with the current state, including the architectural and construction industries. Architects and other professionals in the building construction industry must work as a team in order to achieve a good result for the project.

3.2 Interior Design Project Process

Through a universal understanding of the AEC Industry, and the Interior Design Industry, players will know what to look for in each process. The method comes in several ways, where others are the call-design phase to the design phase and to the completion phase; or the call to design implementation phase to the contract phase until finishing phase; or pre-contract phase to the completion stage and post-contract phase. These adverse phase, process and flow events have come from many interior design companies and even academically.

NCIDQ (2004) explains the verification process for interior design ventures, but does not completely disseminate it to Malaysia's practice. Nowadays, RIBA (2020) has updated the plan of work (PoW) for architecture and architectural projects and apply it widely. RIBA PoW's terminologies and processes are particularly developed for building and structure architectural projects. Furthermore, the Life Cycle of the Project, which consists of a four-phase (CIC, 2005; Lucidchart, 2021) project management approach and 5-phases approach as pronounced by Eby (2018) in the process of creation for construction works, was laid out as a goal-oriented framework (Guru99, 2021). The Knowledge Body, PMBOK 2017 offers guidelines, rules and features for a project which clearly defines the work process as standard professional practices.

Despondently, the sources of literature for the interior design project have been found to be very scarce. This is a huge literacy gap in the study area of interior design. Only, seven sources of literature have been found on the process and practice of interior design projects. The design process appropriate to Neilson and Taylor (2006) in their book notes that the six work stages of design process begins after the Letter of Agreement has been released. Pile (2007) notes that seven work stages of interior design process is the niche for the quality of interior design. Project interior design criteria require various steps and procedures and, supposedly in a logical order of the projects. Gibbs (2005) clarified that eleven work stages of the design process should be included in early stage of the interior design process, and improved on environmental problems, as well as survey and measurement. The fourteen stages of design method for interior design was suggested by Bingelli (2007). Upgraded to Gibbs (2005), she discusses the interior development process before the planning begins, and the needs for focus at the contractual and building phases. Yakeley (2010) defines seven phase of interior design and related phases as RIBA PoW, but focuses on the working scope of interior design. The only Malaysian researcher, Noorhani (2017), spoke about interior design project management, which she verified 15 work stages and examined the content of a Malaysian Society of Interior Design (MSID) and Institut Perkabentuk Dalaman (IPDM) contract form in her thesis, she spoke about the design process, as stated in the table below.

Table 1 - Interior design process by Noorhani (2017)

No.	Interior Design Process
1	Programming
2	Briefing
3	Information gathering
4	Feasibility studies
5	Clients' goals and budget
6	Schematic design
7	Design development
8	Final design
9	Presentation
10	Budget

11	Final construction and working drawings
12	Preparation of contract
13	Detail specification
14	Tender process
15	Contract administration
16	Operation on site
17	Completion

4. Methodology and Results

Explorative research is necessary when there is little expertise on the topic (QuestionPro, 2020). This research began with an exploratory survey, using a semi-structured interview approach. Sessions were conducted with five interior design project team players, two with snowball techniques and three with random selections. Five architects, a quantity surveyor for interior design project, two interior design contractors, two construction managers, an M&E engineer, a client representative, five interior designers, including an interior design project manager and a resident interior designer were interviewed. The interviews were conducted in different day, time, location and duration. The results of this preliminary study contributed to the centred query. A Systematic Literature Analysis (SLR) approach was also carried out to gain insight into the comprehensive process and the flow of the interior design process. Following the SLR process, the next method used was content analysis, which was collected from various selected interior design projects. Content review and interview were used to gather research information. A triangulation methodology was used for the interviews and the framework, using qualitative data.

The content analysis carried out was data such as meeting minutes of projects, progress reports and work programmes. Data collection from interior projects was carried out in conjunction with the interview session. Documents of 20 interior design projects were compiled by 13 respondents. The sample of documents came from the recently completed projects and the handing over of the projects. However, owing to private and sensitive matters, the collected documents were not thoroughly collected. Documents have been processed manually using Microsoft Excel 2016. The contents have been skimmed and scanned repeatedly in order to extract important points of the project process, in particular flow, process and scope of work. In comparison to the key work stages for interior design projects, the independent variables were previously determined from the SLR process. The coding was then developed from the document contents. Documents of each project is accordingly classified and themed (Table 2). The content review of material was carried out by means of deductive analysis approach.

Table 2 - Content analysis’s data management

No.	Content Analysis’s Data Management			
1	Thematic Analysis	Categories of data elements	General work delivery process as:	Initial Pre-construction Construction Post-Construction
2	Typologies	Categories of processes	Narrow to interior design project delivery process	The stages
3	Explanatory Analysis	Question on what happened in each processes	Analyses the data one-by-one work elements in every stages	The process

While interview sessions were conducted with 13 respondents, the purposive of sampling was used. Respondents were chosen for their track record, company status and work experience in the management of interior design projects, from schematic design to on-site projects, which are linked to the research questions. Respondents, the interior design project managers from interior design companies with over 20 years' experience in the management of interior design projects, which totalled five, formed the context for respondents. Next was a senior interior designer who also owned the company with more than 25 years of indoor design experience as well as a senior president of specialist interior design organisations (MSID and IPDM). The two respondents were a member of the MIID Committee. In addition, interior designers who were also owners of companies and managers with more than 15 years of experience in the management of interior design projects were also selected (3 respondents). Finally, two respondents selected, who have worked as interior design contractors and owner of over that 20-year-old construction firms. The majority of the survey respondents have interior design experience and are diversifying their work experience to include development and implementation of interior design projects (Table 3).

Table 3 - List of respondents according to the group

Group	Respondent Background	Respondent
Group 1 Interior Design Project Manager	Interior Design Project Managers <i>(with more than 20 years' experiences)</i>	Respondent 1, 2, 3, 4, & 5
Group 2 Senior Interior Designer	Senior Interior Designers <i>(owner of the companies with more than twenty five (25) years' experiences and former presidents in MSID and IPDM)</i> Senior Interior Designers <i>(owner of the companies with more than twenty five (25) years' experiences and a committee member of MIID)</i>	Respondent 6 Respondent 7
Group 3 Interior Designer	Interior Designers <i>(the company owners as well as managing directors, which having more than 15 years' experience)</i>	Respondent 8, 9, & 10
Group 4 Interior Contractor	Interior Contractors <i>(owner of the construction companies that have 20 years' experience, interior design background, have working experience as an interior designers who managed interior projects)</i>	Respondent 11 & 12

The interviews were conducted in the respondent's offices, on the site of the project, and some were carried out in the restaurants. The raw data of interviews were recorded using voice recorder model Sony IC Recorder (2Gb) MP3 and transferred to the computer into Winamp MP3 audio file. This allowed recorded interviews to be heard and subsequently transcribed into Microsoft Words, word to word, verbatim. The findings of the interior design work stages and process were conducted using comparison analysis (Walk, 1998; Krueger and Neuman, 2006; Vosloo, 2014) between the results to produce a management framework. The study findings were brought to validation process. Five verifiers were purposively and carefully selected from the deposited list of panels obtained from MIID's membership record and added with new expert panels to the list:

Table 4 - List of panel validation

Panel Verifier	Background Description	Years of Experience	Validation Method
Panel 1	<ul style="list-style-type: none"> Director and Principal of one of the renowned Interior Design and Construction Company One of the committee members to MIID 	> 15 years	Direct interview
Panel 2	<ul style="list-style-type: none"> Director and Principal of the Interior Design Company Vast of experiences in an interior project for local and international interior project 	> 30 years	Direct interview
Panel 3	<ul style="list-style-type: none"> Director and Principal of his own Interior Design Company Committee member of MIID, and previously was a member of MSID 	> 12 years	Focus group
Panel 4	<ul style="list-style-type: none"> Director and Principal of the Interior Design Company Experienced as a senior interior designer and project manager in interior design companies 	> 20 years	Focus group
Panel 5	<ul style="list-style-type: none"> Director and Principal of the Interior Design Construction Company Vast experiences in interior design consultation Moved interest into supplying materials and finishes business (company owner) Moved his passion into construction (an interior contractor as well as in interior design consultation well-trained project manager and contractor and has certificates under Construction Industry Development Board (CIDB) Expert in project management of interior projects 	> 15 years	Focus group

Focus group and interview sessions were performed to endorse the validation. These sessions were recorded via Sony Recorder and converted into Microsoft Word documents. The focus of the validations was on the SOW management system of interior design. The process was carefully clarified and the Panel verifiers referred slowly. The viewpoints and opinions of the expert panels were outlined explicitly by both the panel verifiers and the researcher. All the results of the verification have been evaluated and updated accordingly.

5. Analysis and Discussion

5.1 SLR; Findings the Interior Design Work Process

A comprehensive literature analysis. There were merely three (3) sources of data from the construction industry, which were RIBA PoW 2013, Project Life Cycle (PMI, 2008) and PMBOK (2017), and the phenomenon aimed was a project process. Derived from that, an interior design project delivery process that was set as a main phenomenon were extruded from seven (7) interior design author pillars and two (2) contract documents from former Malaysia Interior Design Society and Institution on interior project practice; NCIDQ 2004, (Whited [2010]), Pile (2007), Gibbs (2005), Nielson and Taylor (2006), Bingelli (2007), Yakeley (2010), Malaysian researcher, Noorhani (2016), MSID (2004-2016) and IPDM (1990-2016).

The work development models from all 10 sources were analyzed the order, identified the flows and processes, merged between the similarities of work processes. It was also concurrent analyzed with RIBA PoW 2013, which has been tested with six other work plan models (RIBA, 2013b).

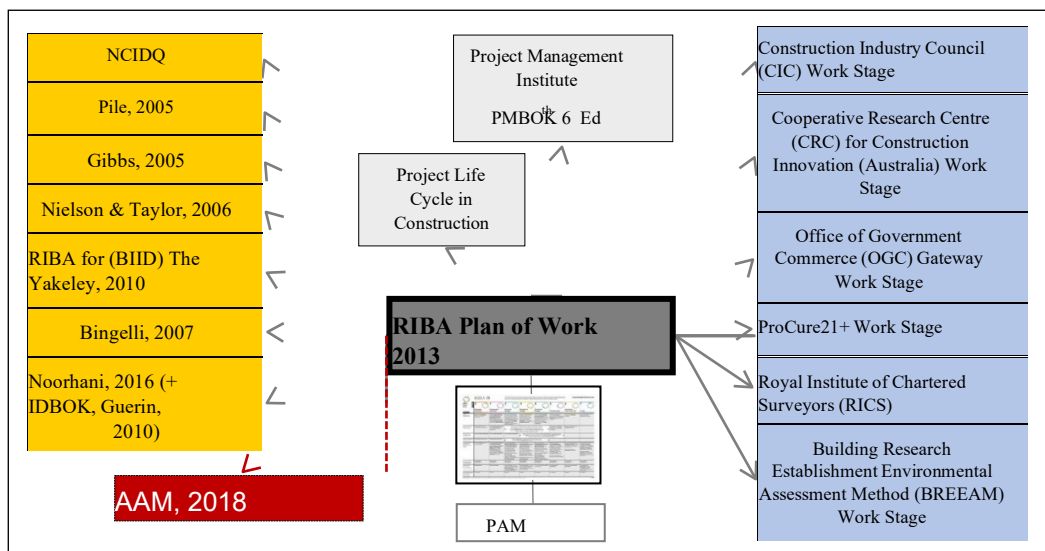


Fig. 1 - The importance of IDWDP management framework model for interior design project practice

This literature analysis discloses for the crucial needs of guideline in managing interior design project. Figure 1 shows that are the only written resources (in yellow color) that can be referred on interior design project process practice and project management. RIBA PoW was set as a main reference where the work stages and process were set as the main variables. The blue boxes show the work plan models that has been testified to RIBA Pow. While, the red box shows the reliability of this study.

5.2 Content Analysis and Interview; Findings the Interior Design Work Stages, Process and Flow

As mentioned in the methodology section before, the content analysis method carried out was data comprises of projects' minutes meeting, progress reports and work programmes. Data collection from interior projects was carried out all at once with the interview session. Documents of 20 interior design projects were compiled by 13 respondents. The document samples came from the newest completed projects and the newly handing over of the projects. However, owing to private and confidential matters, the collected documents were not all collected in sets.

The documents were set according to the project or case. The work stages from RIBA PoW were determined as the independent variables, which they were described as a theme, and the work process were described as a coding. The process was done meticulously, this is because the wording, terminology and flow were very confusing and repetitive. Whereas, the interviews process of analysis is similar to the content analysis's. The voice transferred in to the computer, by Winamp MP3 software installed, heard, transcribed verbatim, skimmed and scanned, extracted out the points and rearranged accordingly. This analysis was quite challenging and painstaking. The needs of hearing repetitively, understand the flow happened at which stage, and so on. The findings from both

data analyses were composed in Table 5.

Table 5 - Summary of the analysis factors towards 20 interior project cases

No	Consideration of Components of WDP	Analysis Factor							
		Consistency	Specific, clear and visible	Align and sequence	Suitably use and direct	Similarity and correspond / redundant parallel / related	Needed / required / sufficient	Missing / insufficient	
1	Terminology and keyword use	X	X	X	X	√	X	√	0
2	Work element or type of work	X	X	X	√	√	X	√	2/8
3	Main work phases	X	X	X	√	X	√	X	0
4	Work stages	X	√	X	√	X	X	√	6/8
5	Work process	X	X	X	√	X	X	X	3/8
6	Work flow	X	X	X	√	√	√	X	2/8
7	Work element in each stage	X	√	X	√	X	X	X	3/8
8	Placement of work process in each stage	X	X	X	X	X	X	√	
		0	2/8	0	6/8	3/8	2/8	4/8	

Table 5 shows the seven analysis factors were adapted for the 20 cases towards considered components in the work development process (wdp). Zero rated on the eight components in the wdp amongst 20 cases; consistency in the terminology usage, work element, work phase, work stage, work process, work flow, work element in each stage and to the placement of work process in each stage. Two over eight considered components, that are in the work stage and work elements in each stage were specific, cleared and visible. All of the components of wdp in 20 cases are not aligned and sequenced. Only two were not suitable to use of 20 wdp cases, that were the placement of work process in each stage and the terminology used. Three were noted having similarity and redundant in the terminology used, work element and work flow of 20 wdp cases. A good sign in the wdp, where two were sufficient in the work flow and main work phase. And lastly four were found missing or insufficient of the placement of work process in each stage, in the work stages, in the work elements, and in the terminologies used throughout the 20 cases.

Table 6 - The Malaysia IDWDP-SOW for interior design project delivery practice

WORK DEVELOPMENT PLAN FOR MALAYSIA INTERIOR DESIGN PROJECT PRACTICE (WDP for ID)											
MALAYSIA INTERIOR DESIGN SCOPE OF WORK (SOW for ID)											
Stage	RIBA PoW 2013	Work Development Process (WDP)			Scope of Work (SOW)						
					SOW	DESCRIPTION					
	0			A	<i>Project Initial</i>						
Pre-Contractual	1	1(1)	Programming	B	Briefing	1	Appointment of Consultant				
						2	Terms of Requirement & ID SOW				
						3	Client's Brief				
						4	Site Analysis				
						5	Initial Client's Budget & Goal				
	2	2(2)	Schematic Design	D	Schematic Design	6	Design Concept				Plans, Drawings & Specifications
						7	Design Development				Detail Development of Proposed Design
						8	Design Implementation				Production of Design Development Drawings
	3			E	Design Development						
						Design Coordination					
						Cost Estimation					
	3-4	(3)	Design Development	F							
				G							
					10	Construction Schedule					

	4			H		12	Client's Approval & Authorities' Approvals	
							Design Review & Finalization	
Contractual	4	Contract Documentation & Implementation		I	Contract & Tender Documentation	13	Tender Drawings	
						14	Detail Specifications	
						15	Bills of Quantity (BQ)	
				J	Project Tendering	15	Tender Process	
						16	Tender Analysis & Report	
						17	Recommendation of Tenderers	
					18	Final Cost Estimation		
WORK DEVELOPMENT PLAN FOR MALAYSIA INTERIOR DESIGN PROJECT PRACTICE (WDP for ID)								
MALAYSIA INTERIOR DESIGN SCOPE OF WORK (SOW for ID)								
Stage	RIBA PoW 2013	Work Development Process (WDP)			Scope of Work (SOW)			
					SOW	DESCRIPTION		
Construction / Installation	5	5(5)	Construction / installation	K	Site Possession	19	Project Award	
						20	Site Utilities, Access and Accommodation	
				L	Site Administration	21	Contract Requirements	
						22	Schedule of Work, Statement of Work, Project Procedures	
						23	Time, Cost, Quality (TQC) Health & Safety (H&S)	
				M	Construction & Installation	24	Mobilization	
						25	Demolition, Renovation & Fit Out Works	
				Q	Monitoring Coordinating and Controlling	26	Periodical Site Inspections & Meetings	
						27	Periodical Progress Report	
						28	Progress Monitoring, Claims & Certificates	Client's Approvals
28	Variations & Instructions							
29	Extension of Time							
30	Mechanical & Engineering Installation & Services							
Post Construction Stage	6	6(6)	Project Completion & Handover	R	Testing & Commissioning	31	Pre Handing Over	
						32	List of Unfinished Work in Schedule	
				S	Completion & Handover	33	Demobilization	
						34	Certificate of Practical Completion (CPC) or Certificate of Non Practical Completion (CNC)	Project Handover
						35	Defect Liability Period (DLP)	
		T	Final Inspection & Rectification	36	Testing Mechanical & Engineering Services			
				37	Review Project Quality & Progress			
		6.7	Post Construction	T	Final Inspection & Rectification	38	Completion of As Built Drawing & Record	
						39	Additional Works – arrangement of urgent maintenance	
						38	Final Authorities Inspection	
39	Certificate of Practical Completion (CPC)							
						40	Certificate of Compliance & Compliance (CCC)	
						41	Project Hand Over	
						42	Defect Liability Management	Final Account
						<i>Project End</i>		
	7					43	Post Occupancy Evaluation	

The themes in the Table 6, were referring work stages (independent variables) from RIBA PoW in the table is not listed, but the numbering/codes were stated in the purple color second column (from the left). Pre-contractual stage for interior design work is covers from stage zero to four of RIBA, including strategic definition stage (0) to the preparation and brief stage (1), concept design stage (2), developed design (3) and to the technical design stage (4). Meanwhile, the flow of stage (theme) for interior design work is stated in the most left column in order. Starting with the pre-contractual stage, to the contractual, to the construction/installation stage and towards post-

construction stage consequently. Third column shows the number coding where, for example, 1(1); number 1 outside of the bracket represents interior design work process, and in the bracket represents RIBA work stage.

Therefore, the wdp for interior design is six altogether, which are programming 1(1), schematic design 2(2), design development 3-4(3), contract documentation and implementation 4(-), construction / installation 5(5), project completion and hand over 6(6) and post-construction 6(7) respectively. The alphabetical order in the fifth column is denoting the scope of work (sow), until the rest of the WDP framework (Table 6).

5.3 Validation with The Interior Design Expert Panels

The validation to the expert panels were executed on SOW management framework, which consisted of outcome Table 6 (from content analysis and interview). The first verifier is the CEO of a renowned interior design and construction company in Selangor. He is one of the committee members and has been practicing interior design for more than 15 years. The second verifier, Director and Chief of the Interior Design Company in Selangor, who has worked on a wide variety of interior projects ranging from local to those that have been done internationally with 30 years working experiences. He is also working on an interior project for the Malaysian Ambassador's Office for the Ministry in Russia. Next, founder and CEO of his own Interior Design company in Kuala Lumpur, works in the interior industry for over 12 years. He has previous experience of work as an interior designer, designer and project manager and has now turned his attention to establishing his own interior design company. He is a member of Malaysian Institute of Interior Design (MIID) and was also a member of the MSID. The fourth verifier is also the chief of the design company in Selangor and has been a senior interior designer and project manager for over fifteen years. He runs his company in both the consulting and design and build businesses. The fifth verifier, the Director and Principal of the Interior Design Construction Company with over fifteen years' vast interior design experience. The project then took a turn into developing the materials and finishes needed for interior design and architecture projects. He then moved his passion to building and runs a company that consists of interior design and small architecture works, as well as double- business, in consulting for interior design. He is a well-trained and skillful project manager with a certification (CIDB).

Five factors of verification were formalized for the validation with the expert panels. And they are agreement of the work process, comprehensiveness and understandable, appropriateness, ease of use and coverage.

Table 7 - Validation factor towards Interior Design Work Development Process (IDWDP)

Expert Panels	Agreement of Work Process		Comprehensiveness & Understandable		Appropriateness		Ease of Use		Coverage	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1	/	-	/	-	-	/	/	-	/	-
2	/	-	/	-	/	-	/	-	-	/
3	/	-	/	-	-	/	/	-	-	/
4	/	-	/	-	/	-	/	-	/	-
5	/	-	/	-	/	-	/	-	/	-
Percentage	100%	0	100%	0	60%	40%	100%	0	60%	40%

Panel 2 and 4 have verified very well on the agreement of the wdp and said to help for the refinement process. Panel 1 has questioned the appropriateness on the applicable of this wdp to other types of procurement contract, so that he suggested to have the betterment version. While panel 3 was agree that this wdp is not appropriate to exercise in Malaysian interior design work custom, where it is quite transparent and worried it might be used by the designers. Panel 2 said it would be enough coverage if to include roles and responsibility, scale of fees and project type, meanwhile, panel 3 stated that to add scale of fees at which stage would be enough to cover the whole interior design work development process. This is showing that, this is the time for the interior design practitioners and the industry as well, to accommodate this work development process management framework for project delivery practice.

6. Conclusion

In conclusion, the research study envisages that, the interior design industry is critically in need of a number of project delivery practices initiatives. Professional interior design professionals should balance design management and project management. This is because design is not the only matter for creating a quality interior spaces, while design is more important when it is complete. One of the most critical aspects of executing a project effectively is the implementation process. Interior design professional practice should also be carried out and handled intelligently under the guidelines that needs to be followed. In order to enhance the quality of work, in addition to minimizing work clashes, disagreements and risks in the delivery of projects, a major effort is required to establish and identify

the scope of work for the delivery of interior design projects. The initiatives for the projects implementation of the interior projects will not end with this research result, more important issues are to be explored for this SOW in order to further the analysis and enhance the effectiveness and efficiency of the interior design projects.

Acknowledgement

The authors would like to thank Universiti Teknologi MARA for this research. We are grateful to all of those with whom we have had the pleasure to work during this and other related projects.

References

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.tb00313.x

Binggeli, C. (2007) Interior design: A survey. Hoboken, NJ: John Wiley & Sons. 109

Cooperative Research Centre for Construction Innovation, CRC. (2004). A Project Report; Building Procurement Methods. Icon.Net Pty. Ltd. Australia.

Construction Industry Council, CIC, (2017) The CIC Scope of Services. At www.cic.org.uk/services/the-cic-scope-of-service.php

Dodsworth, S. and Anderson, S. (2015). The Fundamentals of Interior Design, Second Edition, Bloomsbury Publishing Plc. ISBN: PB:978-1-4725-2853-7

Eby, Kate (2018). Demystifying the 5 Phases of Project Management, PMBOK Guide Access of the Project Life Cycle Blog. Access: <https://www.smartsheet.com/blog/demystifying-5-phases-project-management#:~:text=Developed%20by%20the%20Project%20Management,%2Fmonitoring%2C%20and%20project%20close.>

Gibbs, J. (2005). Interior Design Portfolio Series, Laurence King Publishing, ISBN: 1856694283, 9781856694285

Guerin, D.A. and Martin, C.S. (2010) The Interior Design Profession's Body of Knowledge and its Relationship to People. College of Design, University of Minnesota.

Guru99.com (2021). Phases of Project Life Cycle. Access: <https://www.guru99.com/initiation-phase-project-management-life-cycle.html>

Procurement Cloud (2021). Procurement Management Process, the 2021 Guide, Kissflow Inc. Access: <https://kissflow.com/procurement-process/>

Krueger, L.W and Neuman, W.L (2006). Social Work Research Methods with Research Navigator, Pearson

Lucidchart (2021). The 4 Phases of Project Management Life Cycle Project, Blog. Access: <https://www.lucidchart.com/blog/the-4-phases-of-the-project-management-life-cycle#:~:text=The%20project%20management%20life%20cycle%20is%20usually%20broken%20down%20into,t he%20beginning%20to%20the%20end.>

Martin, C. S. (2004) TV design myths. *Midwest Home & Garden*, 159–163.

Mustapha, A.A. (2019) Framework for Interior Design Work Development Plan in Malaysian Context. PhD Thesis in Universiti Teknologi MARA (UiTM) Shah Alam, Malaysia.

National Council for Interior Design Qualification (NCIDQ) (2004) endorse by America Society of Interior Design (ASID). Definition of Interior Design. Available at <http://www.ncidq.org/AboutUs/AboutInteriorDesign/DefinitionofInteriorDesign.aspx> [Accessed 10 August 2011]

Nielson, K. J., and Taylor, D. A. (2006) Interiors: An introduction, USA, Brown and Benchmark Pub. ISBN-10: 0697125432, ISBN-13: 97807125439

Noorhani, A.N.M. (2016). A Developed Project Management Competency for Interior Design Professional Practice.

PhD Thesis of University Teknologi MARA (UiTM), Malaysia.

Office of Government Commerce, OGC. (2004) Procurement Guide, Achieving Excellence in Construction, 09 Design Quality. London. www.ogc.gov.uk

Pile, J.F. (2007) Interior design. Englewood Cliffs, NJ: Prentice-Hall, Inc.

PMBOK (2017) A Guide to the Project Management Body of Knowledge 6th Ed, Project Management Institute. At <https://www.pmi.org/pmbok-guide-standards/foundational/pmbok>

PMI (2008). A Guide to the Project Management Body of Knowledge 6th Ed. At <https://www.pmi.org/-/media/pmi/documents/public/pdf/pmbok-standards/pmbok-guide-6th-errata.pdf> ProCure21+ (n.d) at <http://www.procure21plus.nhs.uk/>

QuestionPro, (2020) Exploratory Research: Definition, Methods, Types and Examples, Retrieved at https://www.questionpro.com/blog/exploratory-research/#Exploratory_research_Definition

RIBA Plan of Work, (2013a) at <https://www.ribaplanofwork.com/>

RIBA Plan of Work, Overview (2013b) at <https://www.architecture.com/-/media/gathercontent/riba-plan-of-work/additional-documents/ribaplanofwork2013overviewfinalpdf.pdf>

RIBA (2020). Plan of Work. Access: <https://www.architecture.com/-/media/GatherContent/Test-resources-page/Additional-Documents/2020RIBAPlanofWorktemplatepdf.pdf>

Royal Institute of Chartered Surveyor (RICS) (2017-2018) at <https://www.rics.org/north-america/>

Schneider, W., & Shiffrin, R. M. (1977). Controlled and automatic human information processing: I. Detection, search, and attention. *Psychological Review*, 84(1), 1-66. At <http://dx.doi.org/10.1037/0033-295X.84.1.1>

Vosloo, J.J (2014). Chapter 5: Research Design and Methodology. Retrieved http://dspace.nwu.ac.za/bitstream/handle/10394/12269/Vosloo_JJ_Chapter_5.pdf?sequence=6

Vosloo, J.J. (2014). Chapter 6: Data Analysis and Interpretation. Retrieved http://dspace.nwu.ac.za/bitstream/handle/10394/12269/Vosloo_JJ_Chapter_6.pdf?sequence=7

Walk, K. (1998). How to Write a Comparative Analysis. The Writing Center, Harvard University. Retrieved <https://writingcenter.fas.harvard.edu/pages/how-write-comparative-analysis>

Whited, L.M. (2010) The identity crisis of interior design 'in The State of the Interior Design Profession, eds. Caren S. Martin and Denise A. Guerin (New York: Fairchild Books, pp. 453-459

Wright, R. (2006). The Scene and Unseen; Form Plays and Equal Role to Function in the Design of Successful Space. *Interiors & Sources*, pp. 52-53

Yakeley, D. and Yakeley, S. (2010) The BIID Interior Design Job Book: How to Run a Project. London: RIBA Publishing.