

INVESTIGATING THE PROBLEMS IN HOTEL REFURBISHMENT PROJECTS

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ABSTRACT

Hotel industry is one of the major contributors to the national economy in most countries including Sri Lanka. Due to the high tourist attraction in Sri Lanka, demand for modifying and upgrading the hotel industry to keep pace with the trend is inevitable. Refurbishment thus covers a wide range of activities originating from decoration to conversion. However, numerous problems are encountered in refurbishment projects and further the industry lacks in-depth investigations on strategies to minimise such problems associated. Hence this research was aimed at studying the problems prevailing in hotel refurbishment projects and thereby suggesting strategies to minimise such. A qualitative research approach was followed inclusive of three cases of recently completed hotel refurbishment projects in order to explore the causes and respective strategies to curtail the problems in connection with hotel refurbishment projects. Accordingly, most common problems are the percentage of services work, obstruction by occupancy, unrealistic time pressure and risk in health and safety. Subsequently, the study explored the main causes for those to be guest disturbances, operation of the hotel, unforeseen work and reluctance to wear safety accessories. Key strategies that could be adopted are planning ahead, separating the noisy working areas, carrying out feasibility studies and making compulsory to wear safety accessories. Through this study, it is recommended to follow up the strategies to minimise the problems in hotel refurbishment projects in Sri Lanka to enhance the lifespan of a hotel building effectively.

Keywords: Causes; Hotels; Refurbishment; Sri Lanka; Strategies.

1. INTRODUCTION

Building works can be classified either as newly built or other types of activities such as upgrading, renovation, repair, expansion or maintenance (Olanrewaju and Abdul-Aziz, 2014). Lawrence and Werna (2009) emphasised that equivalent and utmost consideration must be given to on the renovation and maintenance of existing structures as much as new constructions. However, it is difficult to identify the absolute boundaries of the physical process under refurbishment (Mansfield, 2002). Furthermore, the use of each word could be misleading and may cause an obstacle for the implementation of each concept (Zolkafli *et al.*, 2012). Thus, the research identified the refurbishment as building work consists of any reconstruction, renovation, upgrading, restoration, renewal, conservation, rearrangement, alteration and conversion, expansion excluding new building or regular repair and maintenance works.

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According to Ali (2009), once the existing buildings are getting old, maintenance and refurbishment works are done in order to prolong the life of those buildings. In addition to that, Construction Industry Research and Information Association (CIRIA, 1994) stated that even the buildings with good working conditions, also subjected to refurbishments due to the requirement of owners to accommodate new technologies or to change the role of the business operation. In a nutshell, Aikivuori (1996) stated that failures in buildings (corrective refurbishment), change in use (space altering refurbishment), optimisation of economic factors (optimising refurbishment), subjective features (pleasure refurbishment) and change of circumstances (opportunity refurbishment) are the main reasons for refurbishment.

According to Langdon and Everest (2002), generally hotels undergo refurbishment once in five to ten years. Hotel industry is one of the major contributors of the income of most of the countries including Sri Lanka. As findings represent, as the contribution of 57% of Gross Domestic Product (GDP) of Sri Lanka is from the services sector (Department of Census and Statistics, 2017). When considering Sri Lankan context, Ekanayake *et al.* (2018) found that the number of hotel refurbishments is higher than other building types. Also, the authors provided reasons as Sri Lanka possesses more tourist attraction and because of that, the hotel needs to be upgraded and modified with the up to date requirements. In addition, due to day to day operation throughout the years, hotels are easily subject to degradation than other types. However, limited researches have addressed refurbishment sector, specifically the hotel industry. One research study, which was conducted by Ekanayake *et al.* (2018) focused on challenges in hotel building refurbishment in Sri Lanka which was found the topmost challenges as budget overruns and time overruns due to superficial design and construction activities. Furthermore, Athapattu and Gunawardena (2010) studied on delaying causes of hotel refurbishment projects as a resultant of actions of project participants and identified the most significant causes under five categories as causes pertinent to clients, consultants, contractors, project condition, and external causes.

In order to minimise adverse effects of the problems in refurbishment projects to the cost, time and quality targets, suitable approaches should be adopted. Beforehand, it is required to identify the problems that are inherent. Thus, this study focused on the identification of problems that are present in refurbishment projects due to the inherent characteristics of refurbishment concept and thereby identification of causes and strategies to mitigate those problems in hotel refurbishment projects in Sri Lanka.

2. LITERATURE REVIEW

2.1 OVERVIEW OF REFURBISHMENTS

Buildings are being physically deteriorated over time and while subjecting to different forms of obsolescence (Babangida, 2014). Thomsen *et al.* (2015) explained obsolescence as the process of declining the performance of buildings. The stage of obsolescence is important to get the decision whether to refurbish or completely redevelop (Kangwa and Olubodun, 2004). Conversely, CIRIA (1994) mentioned that refurbishment could be done not only in case of deterioration, but also with the building being in an authentic condition whereas the owner decides to accommodate new technology. Refurbishment projects are complex and less predictable projects within the construction industry (Rahmat and Ali, 2010). Arain (2005) identified problems in construction stage as improper site surveys,

concurrent operation by owners, selection of contractor etc. Procurement route is another aspect to be considered in managing refurbishment projects (Ali *et al.*, 2014). Thereby the research tended to investigate the causes of problems in refurbishment projects in terms of stages of project, specifically the procurement phase and construction phase.

2.2 PROBLEMS ASSOCIATED WITH REFURBISHMENT PROJECTS

Mansfield (2009) identified that comparatively more technical and economic risks are involved in refurbishment projects than new build. Furthermore, Kulkarni *et al.* (cited in Prabhakar, 2008) mentioned that project stages can be grouped into main three stages as the procurement phase, execution/construction phase and operation and handover phase. However, the study basically focussed on the procurement phase, execution/construction phase, which are considered to constitute a higher effect on successful completion. These stages are used as a base to manage refurbishment projects while identifying problems encountered along with identifying responsible parties and thereby applying suitable approaches to minimise those problems in each stage.

Studies have identified several problems associated with refurbishment projects as in Table 1.

Table 1: Problems encountered in refurbishment projects

	Problem	Source												
		A	B	C	D	E	F	G	H	I	J	K	L	M
Procurement stage														
1	Lack of accurate and complete design information	✓	✓	✓	✓		✓							✓
2	Level of involvement of parties in design stage				✓	✓		✓			✓			
3	Determining client's needs													✓
4	Percentage of services work	✓						✓			✓			
5	Percentage of provisional sum													
6	Percentage of structural work							✓					✓	
7	Difficulty in determining amount of contingency							✓						
8	Statutory requirements							✓	✓					✓
Execution stage														
1	Obstruction by occupancy	✓						✓	✓				✓	
2	Noise, vibration, fumes and dirt								✓					
3	Restricted access, temporary circulation and site boundary	✓						✓	✓	✓				
4	Reduced space for material storage												✓	✓
5	Uncertainty over availability of materials							✓						✓
6	Restriction on plant usage imposed by site location							✓						
7	Security								✓					
8	Risk in health and safety							✓	✓	✓				✓

	Problem	Source												
		A	B	C	D	E	F	G	H	I	J	K	L	M
9	Variation of scope						✓							✓
10	Unrealistic time pressure						✓							

Sources: A- (Ali, 2009) , B- (Ali, 2010), C- (Ali, 2014), D- (Ali and Rahmat, 2009), E- (Arain, 2005), F- (Babangida, 2014), G- (CIRIA, 1994), H- (Ikpe *et al.*, 2006), I- (McKim *et al.*, 2000), J- (Mitropoulos and Tatum, 2000), K- (Rahmat, 1997), L- (Shen *et al.*, 2004), M- (Ekanayake *et al.*, 2018)

Referring to Table 1, most of the problems were identified in more than one literature sources. This emphasises that those problems are generally observed in refurbishment projects. Considering the frequency of each problem, it seems that the problems of lack of accurate and complete information and obstructions by occupancy were highly quoted. Moreover, level of involvement of parties in design stage; risk in health and safety; restricted access, temporary circulation and site boundary; percentage of services works and statutory requirements were also considered to be common. Services complicate the problems in the accuracy of the designs and obviously affect the smooth running in the construction process. According to Ali (2009), once the proportion of services work is increased, more problems are likely to be encountered in services designs. Ali (2009) stated that the building has to be shared among occupants and project teams, which thereby affects the sequence of work. According to Hughes and Ferrett (2007), safety is the most important investment of construction projects. The responsibility regarding safety of refurbishment projects is higher than on newly built, as well the presence of client's personnel makes complicated safety problems in the progress (CIRIA, 1994).

3. RESEARCH METHODOLOGY

Considering the nature of the background evidences and the aim of this study, as it required to reveal subjective exploratory in-depth views of the phenomenon, a qualitative approach was selected for the research. Yin (2014) emphasised the advantages of using multiple case studies over single case studies, as it can be obtained independent conclusion of each case and those become more powerful information than obtained from a single case. Considering above factors, case study was selected as the research strategy inclusive of three hotel refurbishment projects. Table 2 indicates the general information of the selected cases.

Table 2: Profile of the cases

Description	Case 1	Case 2	Case 3
Type	5-star rated hotel located in Colombo	5-star rated hotel located in Colombo district	5-star rated hotel located in Galle district
Work status	Completed	Completed	Completed
Duration	Planned: 6 months (Phase 1) Actual: 7 months	Planned: 1 year Actual: 1 year+ 18 months	Planned: 1 year Actual: 1year+ 6 months
Cost	<u>Contractor's perspective</u> Budgeted (Rs.): 500Mn+120Mn	<u>Contractor's perspective</u> Budgeted (Rs.): 1000Mn Actual (Rs.): 1000Mn	Budgeted (Rs.):52 Mn Actual (Rs.): 56Mn (including variations)

Description	Case 1	Case 2	Case 3
	Actual (Rs.): 620 Mn		
Procurement method	Traditional	Traditional	Traditional
Contract type	Re-measurement fixed rate	Lump sum fixed rate	Lump sum fixed rate
Scope	Renovation of guest rooms, public areas and banquets, including Mechanical, Engineering and plumbing (MEP) work and finishes. Phase 1- refurbishing 85 keys-guest rooms, lobby and bar and external lodge	Renovation of old wing, including all both architectural and MEP works	Refurbishment work includes demolition work, breaking and reconstruction, alteration and prepared to the existing, floor and wall finishes, painting, plumbing, hot water and cold-water supply system, Extra Low Voltage (ELV) system

In terms of the extent of refurbishment, case 1 involved soft refurbishment in comparison to case 2. Besides, case 3 involved mainly an interior refurbishment. Furthermore, face to face semi-structured interviews facilitate the capability of requesting additional questions if required while clarifying doubts (Fellows and Liu, 2003). Thus, face to face semi-structured interviews were conducted with the representatives of contractor and consultant of each case (Refer Table 3) to identify how each problem affects each party to the contract in their own perspectives. However, the employer was not interviewed as the consultant acts on behalf of the employer. Hsieh and Shannon (2005) mentioned content analysis as the commonly used technique for analysing qualitative data as it generates logical and also reliable conclusion from the gathered data. Thus, content analysis was adopted to this research.

Table 3: Profile of interviewees

Interviewee code	Years of experience	Scope of work	Educational and professional qualifications
C1/CS	9	Consultant quantity surveying in post-contract management, contract administration	BSc. in Quantity Surveying, Chartered QS
C1/CN	10	Contractor quantity surveying in pre- and post-contract management, project management	BSc. in Quantity Surveying and MSc. in Project Management, Chartered QS
C2/CS	25	Consultant quantity surveying in pre- and post-contract management, project management	BSc. in Quantity Surveying and MSc. in Project Management, Chartered QS
C2/CN	14	Contractor quantity surveying in post-contract	BSc. in Quantity Surveying, Chartered QS

Interviewee code	Years of experience	Scope of work	Educational and professional qualifications
C3/CS	25	management, contract administration Consultant quantity surveying in pre- and post-contract management, project management	BSc. in Quantity Surveying and MSc. in Project Management, Chartered QS
C3/CN	15	Contractor quantity surveying in pre- and post-contract management, project management	BSc. in Quantity Surveying and MSc. in Project Management, Chartered QS

As per Table 3, a total of six experienced professionals were involved in the current research. In terms of years of experience, all the interviewees were possessed with adequate industry experience in pre and post contract phases to contribute the study with their technical and professional knowhow. Moreover, all the interviewees are chartered quantity surveyors and had exposure to the fields of project management and contract administration, so that they were able to enlighten the study with their peculiar expertise. Thus, this profile of information of research participants gives an indication that the collected data are reliable.

4. RESEARCH FINDINGS

4.1 EXPOSURE TO PROBLEMS IN HOTEL REFURBISHMENT PROJECTS IN SRI LANKA

The interviewees were asked to indicate the exposure to problems in each case. The responses are provided in Table 4.

Table 4: Exposure to the problems

Problem		Exposure to the problems		
		Case A	Case B	Case C
Procurement stage				
1	Lack of accurate and complete design information	✗	✓	✓
2	Level of involvement of parties in design stage	✗	✗	✓
3	Determining client's needs	✗	✓	✓
4	Percentage of services work	✓	✓	✓
5	Percentage of provisional sum	✗	✓	✗
6	Percentage of structural work	✗	✓	✓
7	Difficulty in determining amount of contingency	✗	✓	✗
8	Statutory requirements	✓	✓	✗
Execution stage				
1	Obstruction by occupancy	✓	✓	✓
2	Noise, vibration, fumes and dirt	✓	✓	✗
3	Restricted access, temporary circulation and site boundary	✓	✓	✗

	Problem	Exposure to the problems		
		Case A	Case B	Case C
4	Reduced space for material storage	✓	✓	✗
5	Uncertainty over availability of materials	✗	✗	✓
6	Restriction on plant usage imposed by site location	✓	✓	✗
7	Security	✓	✓	✗
8	Risk in health and safety	✓	✓	✓
9	Variation of scope	✗	✓	✓
10	Unrealistic time pressure	✓	✓	✓

According to the exposure of each problem within each case, considering the procurement stage, percentage of services work is the only problem prominent in all the three cases. In consideration of the construction stage, obstruction by occupancy, unrealistic time pressure and risk in health and safety are the problems which were observed in all the three cases. Therefore, the said four factors were considered to be four of most common problems associated with hotel refurbishment projects in Sri Lanka. Accordingly, the four most common problems in the above three cases are discussed in-depth in terms of underlying causes and strategies to mitigate such. Furthermore, the discussed underlying causes and strategies to mitigate are the most cited by the sources and the interviewees.

4.2 UNDERLYING CAUSES OF PROBLEMS

Table 5 demonstrates the underlying causes of problems associated with hotel refurbishment projects in Sri Lanka.

Accordingly, guest disturbances was identified as a major cause in all problems except in 'Risk in Health and Safety'. In most of the hotel refurbishments, part of the hotel is functioning at the time of the refurbishment is going on. The employer expects the refurbishment to be done at the required level of quality, cost and time requirements while not disturbing the revenue generating through the occupancy of the other part of the hotel. In contrast, from the contractor's point of view, the presence of the occupancy leads to make disturbances and obstruction to the sequence of the work. Consequently, another cause for percentage of work identified by C1/CS is, company policy restrictions to not to close the hotel in whole during refurbishments. Therefore, if more services are present, refurbishment has to be done with the minimum disturbance to operation. Normally in hotel industry, many of the bookings are done in advance while focusing on specific months, seasons that more tourism arrivals are expected. In that case, employer expects to get finished such refurbishments on time. Therefore, in such conditions, employer would pressure contractor and consultant to get the work done. Most of the time, this problem seems to present at the latter part of the construction program. If thoroughly considered, the aggregate of other problems affect the work sequence would ultimately become cause for this problem. On the other hand, C1/CN, C2/CN, C2/CS and C3/CN mentioned that the main cause for 'Risk in Health and Safety' is reluctant to wear safety accessories. Accordingly, labourers tend to refuse and be reluctant to get used for these health and safety aspects which ultimately become a problem and a risk in hotel refurbishments.

Table 5: Underlying causes of problems

Problems	Percentage of Services Work	Obstructions by Occupancy	Unrealistic Time Pressure	Risk in Health and Safety
	Work stoppage due to guest disturbances	Work stoppage due to guest disturbances	Work stoppage due to guest disturbances	Reluctance to wear safety accessories
	Hotels being in the operation	Hotels being in the operation	Unrealistic time targets	Demarcation and guest and construction areas
	Unforeseen work		Unforeseen work	Uncontrollable dust work
	Compatibility problems with the existing structure		Risk transfer to the contractor	Minimal temporary covering
Causes	Budget constraints			Contractor's responsibility of indemnification
	Company policies			
	Difficulties in upgrading current specifications			
	Difficulties in working with existing fittings			

4.3 STRATEGIES TO MITIGATE THE PROBLEMS

Table 6 tabulate different strategies to overcome or minimise the problems associated with hotel refurbishment projects in Sri Lanka.

As it is required to work with the existing structure and already running services, much care is critical, since otherwise, it has the potential of affecting the whole operation of the hotel. According to C1/CS, although cost would increase to some extent due to the shift of the work time, it is essential to bear it, otherwise, it may incur more time and cost due to the work delay and disruptions. Moreover, C1/CS gave another suggestion of adhering to alternative ways in case of disturbance to the sequence of work. Majority of the interviewees specified plan ahead as the best strategy to be adopted. C2/CS and C3/CN specified that changing the working schedule as another strategy. Besides, C3/CS and C3/CN identified another two strategies as providing separate access for guests and covering refurbishment areas with painted walls in order to mitigate 'Obstructions by Occupancy'. An important point to be highlighted is that the problem of noise, vibration would indirectly support 'Unrealistic Time Pressure'. Thus, planning ahead would be a strategy for mitigating both problems. Continuing assessment of feasibility would be helpful in identifying deviation and could be used as a guide to take steps to make the project feasible. Majority of the interviewees identified compulsory wear of safety accessories on the site as a beneficial strategy. Another important strategy highlighted by C1/CN, C1/CS and C3/CN is maintaining and adhering to a safety manual. Moreover,

C1/CN highlighted introducing a fining system as this is a kind of strict process to think of at last if no other possible strategy could be adopted.

Table 6: Strategies to mitigate the problems

Problems	Percentage of Services Work	Obstructions by Occupancy	Unrealistic Time Pressure	Risk in Health and Safety
	Planning ahead	Planning ahead	Planning ahead	Planning ahead
	Checking compatibility		Checking compatibility	Designating compulsory wear of safety accessories at site
		Providing separate access to guests		Adhering and maintain a safety manual
	Informing hotel operation	Demarcating noisy working areas (wings)	Conducting feasibility studies	Providing separate access to guests
	Seeking alternative sequences	Informing hotel operation	Risk transfer to the contractor	Preliminary allocations for health and safety
Strategies	Preparing a detailed BOQ	Covering refurbishment areas with painted walls	Client and contractor compromising	Introduction of a fine system
	Involvement of an interior contractor	Changing the work schedule		Proper education on health and safety at construction sites
	Careful removal and repair	Providing temporary covering or protection		Providing adequate insurance coverage
	Providing reasonable time and contingencies in the contract	Sectional completion on pricing basis		
	Improved supervision			

5. DISCUSSION

In generic refurbishment projects, obstructions by occupancy (Rahmat, 1997; Arain, 2005; Ali, 2009; Babangida, 2014), risk in health and safety (CIRIA, 1994; Ikpe *et al.*, 2006; Babangida, 2014; Ekanayake *et al.*, 2018), and percentage of services works (McKim *et al.*, 2000; Ali, 2009; Babangida, 2014) were some the most quoted problems. The same were identified as specific to the hotel refurbishments in the study, and as well recognised as the most common problems associated in all the three cases that were studied. However, lack of accurate and complete information (Ali, 2009; Ali and Rahmat, 2009; Ali, 2010; Ali, 2014; Babangida, 2014; Ekanayake *et al.*, 2018), level of

involvement of parties in design stage (CIRIA, 1994; Mitropoulos and Tatum, 2000; Arain, 2005; Ali and Rahmat, 2009), restricted access, temporary circulation and site boundary (CIRIA, 1994; Ikpe *et al.*, 2006; Ali, 2009; Babangida, 2014), that were recognised as common issues in refurbishment projects, were not identified to be most common in hotel refurbishment projects in Sri Lanka. The reason is that due to the constraint on time availability, the most common problems were ought to be the problems that were common in all the three cases. Furthermore, on April 21, 2019, four tourist hotels and in Colombo and three Catholic churches were attacked by Islamic extremists (Anderson, 2019). This is anticipated to take a new shift in the hotel refurbishment projects in Sri Lanka. The circumstance established a varied reason for hotel refurbishment apart from repairs, altered use, optimisation and owners' decisions. Furthermore, such refurbishment would emerge particular problems, which need to be addressed by adopting different strategies.

6. CONCLUSIONS AND RECOMMENDATIONS

In Sri Lanka, hotel industry is in a boom in the economic perspective and demands modifications and upgrading in order to fulfil changing requirements of tourists and the trends. Thus, focusing on hotel refurbishment would be much more worth and minimising the problems as much as possible leads the smooth running of the project. The study is focused on hotel refurbishment projects in Sri Lanka based on problems and strategies to minimise the problems in relation to the selected case studies. Referring to the literature review, the problems associated with refurbishment projects were basically identified, mostly focused on the global context. Subsequently, through case studies therein, each of the problems relating to the hotel refurbishment in Sri Lankan context were inferred.

Considering the problems, percentage of services work and obstruction by occupancy are the topmost challenging problems revealed through both literature review and research findings. Other than that, unrealistic time targets and risk in health and safety are other elaborated problems to be addressed in relation to the Sri Lankan context. Percentage of work is basically caused by guest disturbances and compatibility issues which can be minimised by planning ahead and checking the compatibility. Obstruction by occupancy is caused due to operation of the hotel and work stoppage due to guest disturbances. Such can be avoided by planning ahead, separating the noisy working areas, allowing a separate access for guests and such. Unrealistic time targets are caused basically due to unforeseen work and having had to complete work before specific seasons which can be minimised via planning ahead, carrying out feasibility studies and checking the compatibility. Risk in health and safety is caused by reluctance to wear safety accessories, issues in demarcating guest vs. construction areas and due to dust issues, which are supposed to be minimised by making compulsory to wear safety accessories and maintaining and adhering to a safety manual. However, the best practice is to adopt strategies without waiting until the problem would appear in the refurbishment project. Implementing strategies in initial stages would help to minimise a lot of problems which would otherwise appear in later on within the construction.

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