

e-Proceeding

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A PRO-ACTIVE APPROACH IN MANAGING HOUSING DEFECTS: A WAY OF PRODUCING A QUALITY HOUSE

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Abstract

Housing defects is a common problem that occurred in housing construction. It is important to ensure a good quality of housing product to fulfil the user's satisfaction. Existing studies have determined the common problem causes of housing defects in Malaysia. This research aimed to establish the housing defects causes of undiscovering present finding housing defects issues in the housing construction industry. The research objectives were to identify the causes of housing defects and to analyze the pro-active measures in managing housing defects to produce a quality house. This research is done through literature review, supported by a questionnaire survey. This study found that most significant causes of housing defects were due to human error, listed as the quality of contractors, lack of experience and competency of labour or poor workmanship and lack of supervision and quality control. The research also evaluated the most pro-active approach in managing housing defects was by proper manpower management. From the research findings, it can be concluded that the occurrence of housing defects can be minimized through the proper manpower management to produce a quality house.

Keywords: *pro-active approach, building defects, quality house*

1.0 INTRODUCTION

Abdul Rahman *et al.* stated that the construction sector contributes a great percentage to the economy in the growing countries, which includes Malaysia. The construction industry has also enhanced the quality of life of Malaysians with various forms of physical development. Therefore, the quality of housing is important because it is also associated with the quality of life of its people (Yahaya, 1998).

However, Nima *et al.* (2002) pointed out that the construction industry today undergoes a lot of problems such as decrease of the standard of quality, the rise of cost and delay of the construction projects. Poor quality in construction projects is a common phenomenon in the world. Many disputes happened among clients, house owners and parties involved in construction (especially contractors) on construction defect cases (Ali & Wen, 2011). Defects in the building at the operational or maintenance of the building are influenced by the defects that occur in the construction process (Joseph, 1999). A defect is deemed to occur when a "component has a shortcoming and no longer fulfils its intended function" (Georgiou, 2010).

2.0 LITERATURE REVIEW

2.1 Causes of Housing Defect

Khalid *et al.* (2006) agreed that the role of the subcontractor is one of the factors that contribute to construction deficiency (poor workmanship) and many people are not always focusing on this factor. Besides, industry stakeholders agreed that insufficient skilled manpower is the most important matter that they are concerned about (Jorge *et al.*, 2005).

Moreover, the ability of management of the construction site is the primary cause that affects labour daily productivity (Dai et al., 2009). Jha and Chockalingam (2009) stated that the quality of the project manager is one of the causes of affecting project quality. Therefore, poor project management is one of the factors that contribute to poor workmanship.

2.2 Proactive Approach to Manage Defect

Pro-active is the (a person or action) creating or controlling a situation rather than just responding to it after it has happened (Oxford Dictionary). Abdulaziz (2010) mentioned that manpower is the sole productive resource; hence construction productivity is essentially relying on human endeavour and performance. Therefore, the management of manpower in every construction project should be arranged skillfully.

Dai et al. (2009) stated that the capability of construction managers to manage, arrange and lead the work would affect the construction labour productivity. If a construction manager failed to lead and control the construction project, the quality problems may arise. In addition, Ghaffar et al. (2010) noted that enhancing the quality by strict supervision in the construction site is one of the criteria of recent practices in the construction sector. Besides, Robby et al. (2001) stated that well-prepared designs and drawings affect the future works to become easier and the defects can be identified and rectified more effectively.

3.0 METHODOLOGY

The methodology of this research is through literature review and questionnaire survey. The literature study was done through reading from reference books, journals and articles. The literature review hence guides to develop the questionnaire, which is discussed in the following section. Questionnaire survey is the research project was developed based on the information gathered in the literature review. The study focused on all groups of professionals in the construction industry in both the public and private sectors. The questionnaire was distributed to some location within the area that the researcher can reach which is near the Alor Setar area. For this research, the questionnaire survey was completed by sixt-six respondents. Data collected from the questionnaire was then analysed using the Statistical Package of Social Sciences (SPSS).

4.0 ANALYSIS AND FINDINGS

4.1 Factors of housing defect

Table 1: Degree of frequency on factors of housing defects

Factor of housing defect	Degree of frequency					Total	Relative Index (RI)	Ranking
	1	2	3	4	5			
Quality of contractors	0	1	5	29	31	66	0.87	1
Lack of experience and competency of labour/ poor wormanship	0	1	11	28	26	66	0.84	2
Lack of supervision and quality control	0	4	22	33	7	66	0.83	3
Poor project management	1	3	10	36	16	66	0.79	4
Complicated role of subcontractors	0	6	19	34	7	66	0.73	5
Poor communication	0	4	22	33	7	66	0.73	6
Limited cost	0	9	17	31	9	66	0.72	7
Poor design quality	2	6	21	26	11	66	0.72	8
Limited time	0	11	25	24	6	66	0.68	9

Note: 1= Strongly disagree, 2=Disagree, 3= Neither agree nor disagree, 4=Agree, 5=Strongly Agree

The Table 1 shows the summary for the first objective. The factors at this stage have been ranked based on RI value. It shows that the quality of contractors is the main cause of housing defects with RI value 0.87. Lack of experience and competency of labour is the second-highest rank for causes of housing defect with RI value 0.84. The third rank for causes of housing defect is lack of supervision and quality control with RI value 0.83 followed by poor project management with RI value 0.79. Although the complicated role of subcontractors and poor communication have the same RI value which is 0.73, the complicated role of subcontractors has been ranked as the fourth frequently agreed due to its higher frequency on 'agree' and 'strongly agree'. Limited time has the lowest RI value which is 0.68. This result shows that most of the respondents agreed that the quality of contractors is the main cause of housing defects. By having a quality contractor, housing defects can be minimized to produce a quality of housing product.

Table 2: Pro-active approach in managing defects

Proactive approach in managing defect	Degree of frequency					Total	Relative Index (RI)	Ranking
	1	2	3	4	5			
Proper manpower management	0	8	22	25	11	66	0.90	1
Proper construction management	0	4	3	43	16	66	0.88	2
Strict supervision	0	0	9	34	23	66	0.84	3
Proper inspection	0	4	10	33	19	66	0.82	4
Proper communication among parties involved	0	3	4	21	38	66	0.80	5
Proper design	0	0	6	22	38	66	0.72	6

Note: 1= Strongly disagree, 2=Disagree, 3= Neither agree nor disagree, 4=Agree, 5=Strongly Agree

Table 2 shows the frequency of response on a proactive approach in managing housing defects. The approach in this stage has been ranked based on RI value. Proper manpower management has been ranked to the first where the RI value is 0.90, followed by proper construction management with the RI value 0.88, strict supervision with RI value 0.84 and proper inspection by RI value 0.82.

The second-lowest rank is proper communication between parties involved with RI value 0.80 and the lowest RI value which is 0.72 which is proper design. It can be concluded that proper manpower management is the best proactive approach in managing housing defects.

5.0 CONCLUSION

There are many types of housing defects in Malaysia. The main causes of housing defects are mainly on contractor's responsibility in providing a quality house. In order to minimize and manage housing defects, it is important for the parties involved to focus mainly on the manpower arrangement to produce a quality house.

Therefore, housing defects can be minimized if the contractor can follow the pro-active approach which is proper manpower management. In addition, the contractor and developer also need to supervise the construction activities to ensure good workmanship and quality of the house. Professional parties need to take into consideration all the pro-active approaches that had been discussed in the previous chapter to minimize housing defect issues in Malaysia.

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Tarikh : 20 Januari 2023

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Sekian, terima kasih.

“BERKHIDMAT UNTUK NEGARA”

Saya yang menjalankan amanah,

SITI BASRIYAH SHAIK BAHARUDIN
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nar

Setuju.

27.1.2023

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