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# Complaints and Rectifications During Defect Liability Period: Homebuyer Perspective

Mohd Saufi<sup>1</sup>, Liyana Mohamed Yusof<sup>2</sup>, and Rahimi A. Rahman<sup>3</sup>

<sup>1</sup>Ph.D. Student, Faculty of Civil Engineering Technology, Universiti Malaysia Pahang, 26300 Gambang, Malaysia, E-mail: saufiredzuan@gmail.com

<sup>2</sup>Senior Lecturer, Faculty of Civil Engineering Technology, Universiti Malaysia Pahang, 26300 Gambang, Malaysia, E-mail: liyanam@ump.edu.my (corresponding author).

<sup>3</sup>Senior Lecturer, Faculty of Civil Engineering Technology, Universiti Malaysia Pahang, 26300 Gambang, Malaysia, E-mail: arahimirahman@ump.edu.my; Visiting Researcher, General Educational Development, Daffodil International University, 1341 Dhaka, Bangladesh

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**Abstract:** Due to rapid development and overwhelming demands, housing projects are carried out within a short period. This situation leads to low-quality houses being delivered to homebuyers, which can be seen in the recent trends showing increased numbers of homebuyer complaints about house defects. Thus, this study aims to determine the underlying issues that homebuyers face during the defect liability period (DLP). To achieve that aim, this study investigates the complaints by homebuyers and rectifications by housing developers towards these complaints. Homebuyers who bought directly from developers were interviewed with sets of knowledge questions. The questions include complaints related to the defects that appeared during DLP, the promptness of developers to those complaints, and their rights as a homebuyer towards the complaints. The study findings indicate that the underlying issues during DLP are people, process, and knowledge management. Additionally, although awareness of house defects among homebuyers is increasing, the knowledge of the legal rights during DLP is still low.

**Keywords:** Defect liability period, developer rectification, house defects, homebuyer complaints, homebuyer rights.

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## 1. Introduction

The rapid progress of the construction industry increases the regional economy and income (Anaman et al., 2007; Pheng and Hou, 2019). One of the progressive types of construction is housing projects. However, despite the rapid progress of housing projects, there are issues that the construction industry cannot escape. On the contrary, the satisfaction rate in construction quality and developer performance has also decreased.

The construction industry usually has a high demand for housing projects. However, contractors are under immense pressure from homebuyers due to a limited timeframe and budget. As a result, housing projects have issues associated with low quality. The construction of low-quality houses can be observed in the increasing rate of house defect complaints that can be visually inspected (Pan and Thomas, 2015). However, in the worst-case scenario, there are also tendencies to cut corners on construction materials and design specifications, resulting in structural issues that negatively impact homebuyer safety (Nepal, 2006; Ng and Tang, 2010). For example, Malaysia recorded an annual growth rate of approximately seven percent per annum for the housing construction sector. However, the dissatisfaction rate with housing quality does not show a downtrend.

Houses can be one of the largest financial investments one can make in their lifetime (Othman, 2011). Homebuyers will have to fork out additional monetary budgets for repair works on top of the monthly housing loan without proper and good-quality houses. Defects or damages to house components, structural components, and residents' lives due to the low quality of built houses will affect the trust of homebuyers. The huge number of defect complaints can also be described as the negligence and poor management by developers and government bodies in monitoring the deliverable of house quality (Forcada et al., 2012; Al-Momani, 2003). Therefore, there is a need to dive deeper into these homebuyers' complaints and

grasp the issues the homebuyers have towards rectification qualities by developers to improve home quality and regain public trust.

Homebuyers are eligible to check any defects for developers to rectify during the period where developers are responsible for fixing any defects from the date the homebuyer received delivery of vacant possession and keys of the property (i.e., Defect Liability Period (DLP)). However, not all homebuyers are well equipped with the knowledge to conduct house defect checking and budget to appoint external defect inspectors (Rotimi, 2015). Due to this limitation, without a generic guideline and a complete reference list of house fittings, elements, and components for homebuyers, the defect complaints are only limited to visual self-inspection. For example, although a Malaysian government agency has developed a tool to assess housing construction quality, the preliminary observation shows that homebuyers do not know the system well. Furthermore, the system is developed more toward the reference for contractors and developers. As a result, the content is complicated for those without a technical background in construction.

In Malaysia, property developers are subjected to the Housing Development Act. The provision of Clause 13 in Schedule H of the Housing Development Act stated that property should be constructed in accordance with the plans approved by the appropriate authority. The standard Sales and Purchase Agreement (SPA) also has the phrase “the building shall be constructed in a good and workmanlike manner.” In view of this statement, most developers take advantage of house quality and homebuyers that are not equipped with technical and legal knowledge of their property until DLP ends (Yusof et al., 2010). Therefore, developing new standards and laws to protect homebuyers and a medium for effectively conveying information is needed.

From the problems stated above, one of the practical solutions in developing approaches to reduce the impact on homebuyers includes identifying homebuyers' complaints and rectification by developers from the homebuyers' perspective. The first part of the solution that can be gathered and looked into is identifying the complaints of house defects by homebuyers. The information will provide the necessary knowledge for developing practical solutions to address the house quality situation from the homebuyers' perspective. The second part is identifying the developers' response rate and homebuyers' satisfaction level to understand the rectification quality better. In other words, having an inclusive understanding of the emerging complaints from homebuyers towards developers is vital to reducing the negative impact of declining house quality.

Therefore, this study aims to identify the issues homebuyers face during DLP. The study findings can assist the government in identifying the best solutions for creating better-quality houses, protecting homebuyers, and regaining the trust of the people. This study contributes to the lack of knowledge and information by being a few studies to help voice out homebuyers' views on housing quality issues by highlighting their complaints about the house and the developers' rectification quality.

## **2. Literature Review**

One of the most common problems encountered by Malaysian homebuyers is the below-par quality of the construction of houses (Ogunfiditimi, 2010). Although a standard form of SPA is stipulated under the Housing Development (Control and Licensing) Regulations 1989 (HD Regulations 1989), homebuyers are not well protected against house defects. One complaint example by one buyer on the house quality can be found in the *Hwa Chea Lin vs Malim Jaya (Malacca) Sdn. Bhd. (1996) 4MLJ 549* case. The complaint was about the structural defect at the house foundation, which caused a differential settlement (Sufian and Rahman, 2008). Thus, major cracks in the wall and slab of the house. The complaint also includes failure to monitor the design, which is specified for the house that exhibits the negligence of the developer.

The other form by the public work department (PWD) 203 clause 48,1(a) states that any defect, imperfection, shrinkage, or any other damages that arise during DLP is the responsibility of the contractor. In each construction contract, the defect liabilities fall on the developer's and contractors' responsibilities and must be addressed and rectified (Kariyaa et al., 2011). There are two house defect types which are categorized as patent defects and latent defects. Patent defects are normally discovered using ordinary checking and examination, especially from visual and simple observation. Latent defects may not be discovered by simple observation or testing, which can worsen after some time (Ariffin and Mazlan, 2017). Prior work found that house components with frequent defect complaints by the Customer Support and Service (CSS) within 14 days after vacant possession are floors, walls, doors, windows, ceilings, roofs, and fixtures for toilets and showers (Dalib, 2011).

In order to control and standardize housing quality, only certified developers and contractors shall be allowed to do the construction works. The government must ensure that developers and contractors involved in developing a project are officially licensed and obtain a permit to conduct the construction works during the pre-selection stage (Mohamad Fawzi et al., 2011). In addition, developers must ensure that the materials approved shall follow the standard imposed by the laws. For example, the ground floor slab must be 4 inches thick (Sibly et al., 2011). Apart from ensuring good quality control during the construction stage, these laws were introduced to protect homebuyers in relation to their rights, safety, and well-being.

After vacant possession, developers provide homebuyers with a defect guarantee period known as the DLP. During this period, homebuyers are entitled to submit defect complaints. The developers' and contractors' obligations are to rectify the house defects as stated in the Housing Development Regulations 1989 in their SPA for newly built houses. The standard DLP period for both landed and high-rise properties are 24 months starting from the vacant possession date. The rectification works shall be conducted within 30 days after the defect complaints are made. The defects that homebuyers suffer regarding house defects are those found after DLP has ended, which will affect homebuyers emotionally and financially (Sibly et al., 2011).

A longer housing warranty is suggested because it can be more reliable than other durable products with a long-term warranty (Xiao and Proverb, 2002). For example, the United Kingdom offers up to 10 years of housing warranty covering structural and latent defects (Carter, 2005). In contrast, in Australia, the warranty period for structural defects is extended to a minimum of 6 years (Mamutil, 2005). Not all developers do not undertake the responsibility of repairing the house defect. However, there are also who willingly count responsible for rectifying the defects. The responsibility to respond to homebuyers' defect complaints by developers is there. However, the quality assurance of the rectification works is still questionable. There are no guidelines or tools to monitor the quality level of house defects repair works after rectification works. There are cases where developers took no action until complaints were filed several times and related to major defects. What is more worrying is that the repair work was done by non-qualified contractors (Sufardy, 2011).

A system called Building Condition Survey Report (BCSR) assists homebuyers in listing their defect complaints before submission to developers. BCSR contributes during DLP, where it adopts a comprehension literature review focusing on housing problems in Malaysia (Radzuan et al., 2011). However, with all the information combined from the literature review above, no profound studies on complaints of homebuyers on house defects, rectifications, and developers' responses during DLP from homebuyers' perspectives have been done.

### **3. Methodology**

Research methodology is commonly derived from researchers' own views, comprehension, and interpretation of occurrences based on their experience (Ponterotto, 2005). Idealism ontology proves that to understand reality the human mind must interpret an idea before transforming it into reality. Such interpretation through mainly socially constructed meanings, particularly through language, is social constructivism (Robson and McCartan, 2016). This study follows the view of Crotty (1998) that all knowledge and meaningful reality are "contingent upon human practices, being constructed in and out of the interaction between human beings and their world, and developed and transmitted within an essentially social context." Based on these researchers' interpretation, the qualitative data collected through semi-structured interviews were categorized, summarized, and paraphrased into a qualified definition.

This study adopted semi-structured interviews to gather data and analyze using thematic analysis until it reaches a qualitative conclusion (Cresswell, 1994; Bryman, 2016). The data from this study were derived from twenty interviews, where all respondents were homebuyers, followed by questions based on occurrence and action approach (researchers explain what action the respondents will take in a certain situation). The next approach was to analyze with thematic analysis. Fig. 1 overviews the methodology of this study.

#### **3.1. Data Collection**

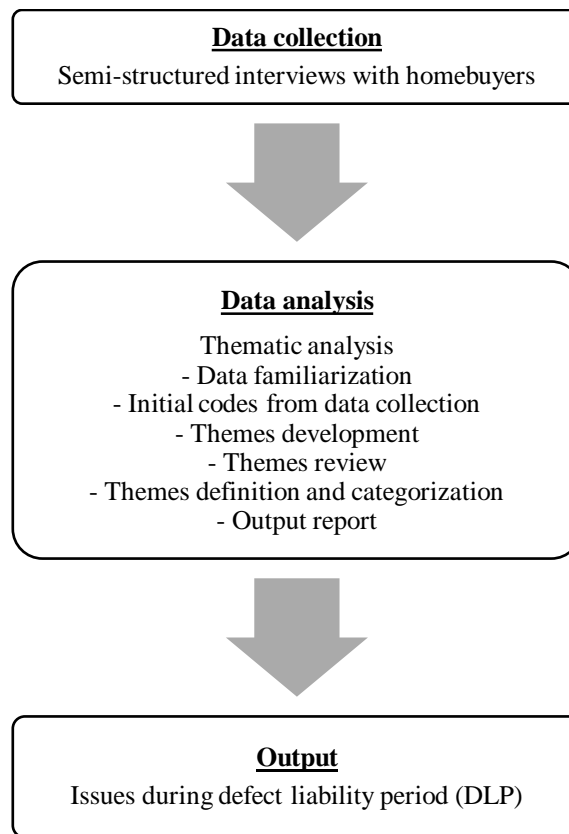
##### **3.1.1. Semi-structured interview protocol**

This study collects data by conducting semi-structured interviews with homebuyers to identify their complaints about house quality and rectification works during DLP by developers. This approach has been used to identify strategies for improving organizational capabilities in digital construction (Munianday et al., 2022) and addressing pandemic impacts on construction projects (Zamani et al., 2022). The interview sessions involved twenty homebuyers comprised of landed and high-rise houses. These individual interviews allow respondents to explain and provide detailed information on their experiences regarding house quality and rectification. They also had the opportunity to offer opinions and suggestions for rooms for improvements in the future, which can benefit future homebuyers (Turner III, 2010). This interview targets homebuyers' awareness of their rights and knowledge about how they should act once the handover of the house process is done. Therefore, these interview approaches enable acquiring the perspectives, knowledge, and feedback from the homebuyers.

The interviews used a semi-structured interview approach acting as the basis for data collection during this study. This interview protocol allows clarification and a deeper understanding of certain points whenever there is room to gather quality and relatable datasets and provide a foundation with regard to the arguments described by respondents (Corbin, 2014). Semi-structured interviews are valuable for this study to thoroughly elicit information described by the respondents on house defects and developer rectifications during DLP. When respondents could not describe or explain their thoughts clearly in words, this method enabled the researchers to better understand the responses of respondents by ensuring the accuracy and comprehensiveness of their statements.

In semi-structured interviews, respondents were not expected to provide feedback solely on a particular situation or case but were encouraged to provide additional feedback and suggestions based on their experience and thoughts. The responses extracted from the interviews were expected to assist in developing house defects and rectification matters that may be a potential for future studies. The interviews were conducted by introducing the researcher's study background, intention, and feedback expectations to the participants. Three main interview questions were introduced to the participant, which covered the quality and defect of houses from homebuyers' perspective, the defect rectification process during DLP, and legislation matters.

In addition to asking open-ended questions, follow-up questions were also included to elicit various responses and obtain a better understanding based on the homebuyers' experience, elaborate more on the type of defects they experienced, which source the respondents used as a basis for the defect checking process and action that shall be taken during DLP upon vacant possession. This could also assist in gathering additional information, clarifying the interpretation of respondents' statements that were correctly comprehended, and encouraging homebuyers to come up with suggestions and any additional comments regarding the quality of houses and developers' response quality during DLP.



**Fig. 1.** Research methodology

If the participant could not respond or elaborate on the questions asked, the interviewer would proceed with an alternative approach by rephrasing the interview question in another way without providing external hints that might alter their response and allow them enough time for a response. After conducting interviews with each respondent, their statements are summarized and returned to each of them for validation and confirmation. After finalizing the statements collected from the semi-structured interview protocol, the information was used for the next process, which is the data collection process. This study's data collection involves interviewing twenty valid respondents in the final quarter of 2021.

### 3.1.2. Selection of participants

Once the interview protocol is finalized, potential participants were categorized to identify suitable individuals that met the study objective and may be able to contribute valuable feedback and perspectives. A purposive sampling technique was adopted. This non-random sampling technique does not specify the number of participants needed to conduct the interview. Instead, it allows the researcher to gather information by selecting individuals who can provide feedback on what information is deemed needed by the qualitative research approach (Etikan, 2016). As for this study, one of the objectives is to understand insights and obtain feedback from individuals that bought houses directly from developers and might encounter defects and unsatisfied rectification processes by developers. This sampling approach enabled to systematic identify appropriate individuals who could provide feedback and useful information for the data collection. After selecting individuals to interview, they will participate in the opportunity depending on their interests and availability. The intended sampling results were focused on homebuyers who bought their houses directly from developers and were chosen based on VP year with a maximum of five years from VP date from the time the interviews were conducted. The maximum of five years of vacant possession ensures that the housing standard and legal matters are updated. Homebuyers still have an idea and can recall the procedures and encounters with developers during DLP. Also, to maintain the accuracy, quality of collected data, and housing standards that are up to date. The interviews were carried out via telephone conversation medium. Prior to the interviews, interviewees were asked about their willingness to participate in this study, and the data will only be used for this study and will be treated as anonymous. Their response via text message application was used as permission to conduct the interviews and use the interview data responses in analysis. This interview approach can be conducted remotely with interviewees regardless of geographical location and time. Table 1 shows the demographic of the respondent profile in this study.

### 3.2. Data Analysis

This study performed thematic analysis on the interview data during the data analysis stage to extract the pattern and identify the complaints and rectifications during DLP from the homebuyer's perspective. The thematic analysis approach can be used in making sense of qualitative data (Braun and Clarke 2006). This method has been conducted by Rahman and Ayer (2017), Radzi et al. (2019), and Zamani et al. (2021) to analyze qualitative data with regard to construction management topics. There are six phases in thematic analysis which were conducted and described by Braun and Clarke (2006).

**Table 1.** Respondent profile

No	Gender	House Location	House Type
R01	Male	Pengkalan Hulu, Perak	Double-storey Semi Detached
R02	Male	Jalan Kebun, Selangor	Single-storey Terrace
R03	Male	Bangi, Selangor	Studio Apartment
R04	Male	Balik Pulau, Pulau Pinang	Apartment
R05	Male	Chemor, Perak	Single-storey Terrace
R06	Male	Kuala Langat, Selangor	Service Apartment
R07	Female	Bukit Jalil, Selangor	Apartment
R08	Male	Puncak Alam, Selangor	Double-storey Terrace
R09	Male	Cyberjaya	Condominium
R10	Male	Bandar Sri Sendayan, Negeri Sembilan	Double-storey Terrace
R11	Female	Bandar Puncak Alam, Selangor	Double-storey Terrace
R12	Male	Bandar Puncak Alam, Selangor	Apartment
R13	Male	Sungai Buloh, Selangor	Apartment
R14	Male	Sungai Petani, Kedah	Double-storey Semi Detached
R15	Female	Damansara Damai, Selangor	Apartment
R16	Male	Shah Alam, Selangor	Double-storey Terrace
R17	Male	Puncak Alam, Selangor	Double-storey Terrace
R18	Male	Klang, Selangor	Apartment
R19	Male	Damansara Damai, Selangor	Apartment
R20	Male	Bandar Puncak Alam, Selangor	Double-storey Terrace

**3.2.1. Checking the data**

The first phase is the stage where the researchers familiarized themselves with the data collected. The process the researcher went through in checking the data includes transcribing the interview data, reading, rereading, distinguishing the initial statements, consolidating, and transcribing those data into a written format. This written format is translated and standardized into a form that can assist in the data familiarization process.

**3.2.2. Generating initial codes**

The second phase is to generate initial codes based on the collected raw data. The researcher then came out with as many promising themes as possible from the extracted data. They will then review, discuss, and decide whether there is a need to add and/or change the suggested coding. The codes can be interpreted as the basic element of information which can be assessed meaningfully regarding the issue (Biyatzis, 1998).

**3.2.3. Searching for themes**

The third phase is to search for themes based on the initial codes. While creating the themes, the codes from the second phase were frequently revisited, as the original data from the first phase. The codes extracted from the previous phase are grouped and generated into a potential theme under a certain category. These themes can be developed by going back to the study objectives to align the study goal and the developed themes, which would help find the intended feedback for the selected interview questions.

**Table 2.** Thematic analysis protocol

Step	Description
Checking the data	Familiarized with the data from conducted interviews and transcribed those data into written format.
Generating initial codes	Utilized the data by reviewing and discussing meaningful codes to create potential themes
Searching for themes	Initiate themes development process based on initial codes, which were reviewed several times to ensure they are aligned with the study objectives.
Reviewing the themes	Reviewing at the code level and the entire data set was done at this stage to ensure the developed themes were coherent with the study objectives.
Defining the themes	Themes were carefully rechecked and reviewed so before they were defined and categorized. Adjustments are required if the scope and content of the theme cannot be determined.
Discussion of the themes	This phase is where output is expected based on the developed theme aligned with study objectives. The categorized themes are quoted from the codes that were extracted.

Source: Braun and Clarke (2006)

**3.2.4. Reviewing the themes**

The fourth phase is the reviewing process of the themes. To ensure data saturation, continuous revision, defining and refining the subthemes, and checking if themes could incorporate well with the extracted code and the entire data set. The researcher revisited the data to explore additional potential themes (Braun, 2006) that were conducted. This method ensures no duplication in the existing theme while finding possibilities for new themes. This process involves two steps, (1) reviewing at the code level and (2) reviewing the entire data set. The themes identified were reviewed by utilizing the corresponding data extracted as the basis for the codes that formed the theme and were checked for coherency. During this phase, any theme that was not aligned with the codes identified must be determined if the root of the issues is from the

developed theme or the extracted data. As a solution, the researcher has options to develop a new theme that aligns with the extracted interview data or to reject the data during this time for future analysis. When finalizing the themes, the themes are reviewed against the entire data again to ensure the identified themes are represented across the extracted data.

**3.2.5. Defining the themes**

The fifth phase is to define and categorize the themes. The researcher continuously revisited the themes, codes, and interview transcription to ensure the established themes were accurate and verifiable to the coded responses. In this step, the interview data are identified before developing themes. Then, the themes are shaped to answer and are aligned with the study objectives. During this process, any sub-themes that may be present are again explored if new subthemes were present to create better-structured data and improve focus on a theme (Braun and Clarke, 2006). Further adjustments are required when it is deemed impossible to determine the essence and basis of the themes. It was as defining each theme with its related scope and content in a simple manner is impossible (Braun and Clarke, 2006).

**3.2.6. Discussing the themes**

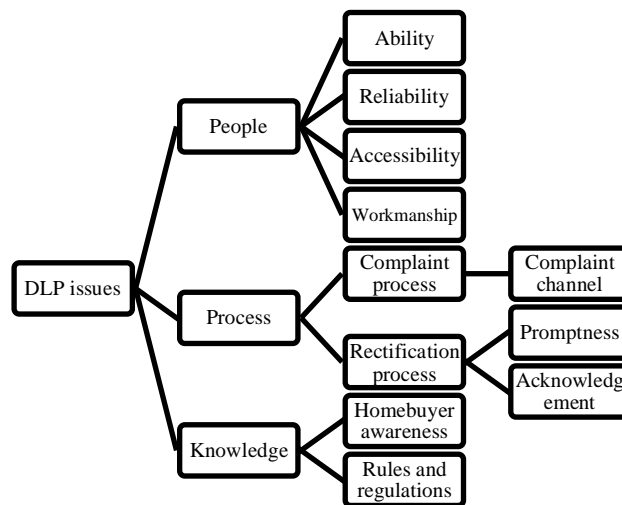
The final phase (sixth phase) comes out with a description of the analysis output with identified themes that reflect the study objectives. The wide establishment of themes was described by including descriptions of the codes that are used to form the themes. The themes were also categorized into two related to house defect checking and legal matters based on the thoughts and feedback provided by the respondents. The resultant themes also provided feedback, such as comments and suggestions from respondents.

**4. Results and Discussion**

Fig. 2 and Table 3 represent the overview of the issues related to homebuyers’ perspectives identified by analyzing semi-structured interview data with twenty homebuyers in Malaysia. Three themes emerged for the issues related to homebuying: people, defective rectification process, and rectification process. Table 4 shows the quotes extracted from the interview data. The summarized explanations and supporting quotes of each theme and its subthemes are described in the subsequent subsections.

**4.1. People-Related Issues**

The subthemes in this category include house defects and the poor quality of houses. All respondents complained of having house defects and poor-quality issues.



**Fig. 2.** Outline of the defect liability period (DLP) issues

**Table 3.** Defect liability period (DLP) issues

Respondent	R 01	R 02	R 03	R 04	R 05	R 06	R 07	R 08	R 09	R 10	R 11	R 12	R 13	R 14	R 15	R 16	R 17	R 18	R 19	R 20	Total
<b>People</b>																					
Ability	√	√	√	√	√		√	√		√	√	√			√	√	√	√		√	15
Reliability								√		√	√	√		√		√	√	√			7
Accessibility	√	√		√	√			√		√	√	√			√	√	√	√			11
Workmanship	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	20
<b>Process – Complaint process</b>																					
Complaint channel	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√	√	19
<b>Process Rectification Process</b>																					
Promptness		√		√		√					√		√	√	√	√	√	√	√	√	11
Acknowledgment			√	√	√	√					√			√	√		√	√	√	√	11
<b>Knowledge</b>																					
Homebuyer awareness		√	√	√	√	√	√	√	√		√	√			√	√	√			√	14
Rules and regulations					√	√	√	√		√	√		√		√		√				9

This category also represents the ability and knowledge of homebuyers to detect house defects that appeared at their house before and after rectification. Fifteen out of twenty people responded to having the ability to conduct their house defect checking. At the same time, the remaining respondents utilize third-party professional services to carry out their house defect checking. This trend shows an increase in awareness and knowledge among new homebuyers. Four of those fifteen respondents who carry out their house defect checking found issues and difficulties accessing certain house parts. The issues include high, unreachable, and limited access areas, including ceilings, roofs, and neighboring or shared wall areas. During rectification, only seven respondents monitored the repair works by the developer's contractors. In contrast, the others only check repair works once the rectification works are completed. The inability to monitor work will affect the quality of rectification. If the workers are not monitored thoroughly during repair works, the same defects will most likely recur.

## **4.2. Process-Related Issues**

### **4.2.1. Complaint process-related issues**

Defect rectification process factors in this study involve the submission process and channel where homebuyers could report to their respective developers to take immediate action on the defect discovered by homebuyers during DLP. During data collection, there were several methods that the developers set for the homebuyers to convey their complaints on house defects during DLP. The house complaints report submission method involves channels where homebuyers can send defect reports through electronic mail, message applications, developer applications, and directly to the developer's office. Nineteen out of twenty respondents utilized these channels to submit their house defect reports as stated by their developer. Difficulties that might arise from non-centralized channels include complications in a situation where there are changes in the person in charge from the developers' side that is following up with the homebuyer are not familiar with the homebuyer's complaints. Another problem without centralized channels is keeping the homebuyers updated on the rectification progress. The accuracy and speed of the defect-checking submission process could be enhanced with the right method and channel.

### **4.2.2. Rectification process-related issues**

Factors for process related to rectification involve the promptness and response quality by developers toward homebuyers' complaints and getting acknowledgment from the homebuyers once the rectifications have been completed. Only half of the respondents are satisfied with their developers' response and promptness concerning their house defect complaints. There we responses found that the homebuyers need to follow up due to unresponsive feedback from the developers and poor repair works carried out by the developers' contractors. Large-scale projects should have a standard where each representative or supervisor from the developers' side can only cover a certain number of units or houses. This step would prevent the person in charge from being overwhelmed by homebuyers' inquiries, increasing the rectification quality and response promptness. Post rectifications show that only about half of the respondents were requested to sign the developers' acknowledgment showing that the repair works have been done as per the defect report. This acknowledgment process must satisfy the homebuyers' complaints, and all defect areas, as stated in the defect report, have been rectified accordingly. This record could also act as a case reference where developers could improve their quality of work according to the most common defect areas.

## **4.3. Knowledge-Related Issues**

### **4.3.1. Homebuyer awareness**

From the analysis of individual interviews with homebuyers, fourteen out of twenty respondents found awareness of their rights as homebuyers. However, only nine out of twenty respondents acquire knowledge of the next course of action in legal matters. Although the awareness shows a positive trend in awareness among homebuyers, the action by homebuyers in a situation where developers are not being cooperative is still on the low side. The trend indicates the lack of public knowledge transfer and awareness regarding law and legislation.

### **4.3.2. Rules and regulations**

This area involves the law and specification standards suggestions that the respondents highlighted during the interview that could be an improvement in protecting homebuyers.

Thirteen out of twenty respondents gave feedback and comments on the standards, such as providing homebuyers with a defect-checking item list upon house handover, a good and centralized house defect record system, and the Ministry of House and Local Government to control developer's house quality from time to time. The feedback from homebuyers suggests that the homebuyers feel there are still things to be improved with the current law and standards to ensure they receive good house quality and are protected against irresponsible developers.

## **4.4. Study Contribution**

From the study conducted locally and internationally, understanding homebuyers' complaints towards developers regarding house defects and rectification quality is essential in producing high-quality houses and increasing homebuyers' satisfaction to a greater height. The information on homebuyers' complaints will enhance the quality of houses constructed and restore the faith and trust of the people towards the government. From the homebuyers' perspective, having a good quality house and reliable developers would impact their satisfaction and emotion in the long run. The improvement in house quality, developer's rectification quality, and the house defect complaints channel or system will not only improve



the national economy in the developments aspect but also will put Malaysia’s housing quality in terms of built and policy on par if not more than the other developed countries in the world.

**Table 4.** The descriptions and supporting statements for the defect liability period (DLP) issues

Issue	Description	Supporting Statement
Ability	The act and/or action one can apply by themselves for inspecting house defects within their knowledge and skills.	Familiar with house defect checking where the information is obtained from social media, the internet, and friends.
Reliability	The trust that homebuyers placed on the contractor to conduct rectification and repair work.	Has no clue about the progress of the repair works because he lives outside of the state. The developer claimed that the rectifications had been completed. However, there was no report or acknowledgment by the developer saying they had completed the repair works. (R13)
Accessibility	The difficulties and/or limitations that homebuyers face during house defect checking include high areas, narrow areas, hidden areas, or shared walls.	Found difficulties when conducting defect checking in certain areas, such as the gutter alignment, which was not aligned properly because of unaligned gutters of the 42-story building where the homebuyer is living at level 7. Going up to other levels to check the gutter situation was not possible. (R7)
Workmanship	The quality of rectification and repair works conducted by the responsible contractors during DLP	Saw leaking in the car porch area. After repair works, the car porch area works without any problem, but there is still a water spot at the linked beam. (R10)
Complaint channel	The medium used to convey complaints and/or house defect checking reports to the developer during DLP	Fill out the form with pictures and remarks and send it by email to the developer. (R3)  Need to print the complaint report as per the given format, including the pictures of defects, and send it to the developer’s office. (R2)  Prepared a housing defect report using a third-party checker with photographs. The house defect softcopy was sent to the developer through the developer’s email and submitted to the management office through homebuyer apps. (R9)
Promptness	The response rate and speed of the developer to react to homebuyers’ complaints and house defect reports sent by homebuyers	Developer responded very slow around 2 to 3 months after they email the house defect report. The developer only sent construction workers without a supervisor to identify the problems. The homebuyer then called the supervisor, and the supervisor came straight away to inspect. (R11)
Acknowledgment	A written statement or a form where homebuyers placed their signatures to indicate their approval of the rectification by the contractors during DLP	Signed an acknowledgment form, but there was no joint inspection. (R19)  Did not have to sign any forms. However, the contractor sent photographs of the repair works area to the homeowner. (R8)
Homebuyer awareness	The homebuyers’ current knowledge of house defect checking and what action can be taken toward the developer if the developer did not deliver the house according to the Sales and Purchase Agreement and in the case where house defects are detected.	Not familiar with housing law and regulations and did not read the Sales and Purchase Agreement thoroughly. He did not take any action other than the first complaint. (R1)  Was not sure what procedure to take yet, but if the time comes when the buyer needs to act, he will search for what actions to take. (R19)  Proceed for tribunal action. She said hiring a lawyer costs money. However, if money is not a problem, she will hire a lawyer and proceed with the case. (R7)
Rules and regulations	The comments and suggestions by homebuyers in terms of legal and housing standards improve the quality of delivered houses and protect homebuyers against irresponsible developers.	Suggested that the developer and salesperson for that development have a regulator to inspect the developer and sales agent. (R6)  In the case of natural issues, the homebuyer suggested that there are cases where homebuyers have no right to claim, such as if the hollowness of tiles is less than 20%, the developer must explain why there is no need to repair. In short, the developer should mention the minimum standard for buildings to homebuyers. (R16)  The developer must provide the defect checklist as a reference, so homebuyers know which component to check. (R16)

**4.5. Theoretical Implications**

The study has identified the theoretical as well as the methodological gaps. There are inadequate studies on the housing issues regarding homebuyers’ complaints about the house quality and developers’ rectification quality. Although few studies have conducted qualitative approaches to housing matters, most prior works only cover housing acts, policies, and developers’ obligations toward homebuyers. However, studies on homebuyers’ perspectives on developers’ housing quality issues are still on the low side. From a theoretical viewpoint, the thematic analysis provided in this study exhibits the key components from homebuyers’ perspectives and knowledge transfer issues. This study provides an investigation from homebuyers’ perspective by gaining complaints about housing issues. The study findings can be used to create possible solutions to improve housing quality. In addition, this study helps examine the areas to develop and enhance homebuyers’ knowledge and ability to conduct their house defect checking and knowledge of their rights as homebuyers to avoid being taken advantage of by developers. In other words, this study intends to improve and refine the housing issues faced by homebuyers and find a method to enhance the homebuyers’ rights to get high-quality houses and smoothen the vacant

possession process during DLP. It is hoped that the action taken based on this study's findings can minimize the complaints about housing quality and disputes with developers.

#### **4.6. Practical Implications**

The ability and knowledge of homebuyers in house defect checking are almost similar and limited, which might create inconsistency in obtaining information for house defect checking. This study intends to figure out the issues that homebuyers face, which policymakers can use to develop a guideline, standard, and system. Hence, homebuyers have a basis and checklist to conduct or monitor defect checking. The areas to check should not be limited to common areas such as walls, doors, floors, windows, roofs, and fittings, but hidden or unseen areas where contractors are prone to cut corners for profit. In short, based on the study findings, homebuyers are expected to be well equipped with the ability and knowledge on matters regarding housing quality issues after vacant possession.

Once the house defect reports are submitted, rectifications will begin according to the related defect areas identified. The quality of repair works can also depend on supervision during rectification. Unfortunately, not all homebuyers have the time to monitor or supervise the rectification work fully. Thus, at times, homebuyers have to rely entirely on the integrity and quality of the contractors and the developer's supervisor to supervise the repair works. Establishing requirements on the rectifications checklist for homebuyers to acknowledge the repair works have been done correctly can minimize any defect rectification dispute in the future. However, problems with the rectification quality and developers' response promptness towards house defect complaints are challenging for homebuyers. This study would aid policymakers in developing and introducing a more effective method to overcome this issue. Further, the important thing to solve, if not minimize, any disputes between homebuyers and developers is to establish a proper, centralized, and recorded defect complaints communication channel. The channel is to ensure all parties can access any update on the rectification progress and prove in writing that a defect complaint has been submitted.

#### **4.7. Managerial Implications**

Another area where homebuyers complained was the response from developers towards their house defect submission. There are times when contractors tend to delay the rectifications until DLP ends. The delay in rectification can cause any defect to be rectified within a very long time and might cause any new defects or recurrence of the rectified defect areas to get voided once DLP ends. Setting a standard period for rectifications that contractors shall obey to avoid repair delays could contribute to homebuyers' satisfaction and peace of mind. In addition, by knowing the common complaints about houses and developers' rectification quality, the government could act on the matter by establishing new standards, policies, and requirements. The government can protect homebuyers' rights by ensuring developers abide by the standards and laws.

This study collected input from respondents that there was a lack of exposure to house defect-checking procedures and housing legal matters. As the result of this study, this input can be collaborated by Housing Developers' Association and the government to develop complaint communication channels to spread awareness of the defect-checking process and how homebuyers can act toward irresponsible developers. Once channels are identified, the type of information and content should be shaped and developed in a way that is easy to understand and grasp by homebuyers, for example, in a graphic content form. This is important as the end goal is to reach as many homebuyers as possible and assist them in understanding the information provided.

#### **4.8. Limitations and Future Directions**

This study has limitations that should be addressed for future research. The current study investigated and focuses more on identifying house defect complaints and developers' rectification quality from the homebuyers' perspective only. Secondly, the interviews were conducted via a virtual platform. Thirdly, as the study focused on respondents from Malaysia, the sample size was limited and specifically covered five states in Malaysia. Despite these limitations, this study shows that it did not affect the quality of the findings and managed to achieve the study objectives. The study findings could be adopted and modified for use in other developing countries with similar housing policies and challenges. Although the data collection is limited to twenty respondents, the data obtained were analyzed with the extant literature where saturation was accomplished. Further research and approaches are advised to obtain additional data from other parties, such as developers, contractors, and government body representatives. The data could investigate how the findings can be adopted in practice or managerial areas, which can be achieved by extending the study by gathering data from other perspectives. Also, the variables obtained can be further assessed via quantitative approaches.

#### **5. Conclusion and Recommendations**

This study found that all respondents face house defect issues and complain about developers' rectification qualities because of the limited and outdated housing guidelines, standards, acts, and policies. This study identified the limited knowledge and ability of homebuyers to identify and conduct house defect checking during DLP. Further to this, the result on developers; rectification response regarding their house defect report showed half of the respondents marked unsatisfactory results, namely the promptness of developers' rectification response and the quality of those defect rectification works. This has turned out to be an upward-trending issue in housing matters. Addressing this matter to the relevant agencies could be beneficial in developing a proper possible channel to overcome these issues. The major recommendations are as follows:

- The study recommends the development of an alternative guideline to the current local guideline. The content of this new guideline should be simple and uncomplicated to ease the comprehension of users across all levels during house defect checking.

- One of the issues identified is that homebuyers face developer responses that are inadequate in promptness and quality. The current complaint communication channels are also found to be inconsistent across developers. Without an established channel, homebuyers face challenges in following up with house defects. To overcome this issue, a centralized complaint communication channel should be developed by government bodies and/or local authorities.
- In addition, the engagement of regulatory bodies and government to set certain additional acts, requirements, criteria, complaints communication channels, and complaints communication methods should be established to minimize any disputes and complaints between homebuyers and developers as well as protect homebuyers and their rights.

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### **Author Contributions**

Mohd Saufi Mohd Redzuan contributed to conceptualization, methodology, data collection, data analysis, and writing-original draft preparation. Liyana Mohamed Yusof contributed to manuscript editing, supervision, project administration, and funding acquisition. Rahimi A. Rahman contributed to manuscript editing, supervision, project administration, and funding acquisition. All authors have read and agreed with the manuscript before its submission and publication.

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### **Institutional Review Board Statement**

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Mohd Saufi is a Geotechnical Engineer and has been working in a Geotechnical Consultancy firm and a Geotechnical Specialist company in Malaysia. He obtained Bachelor's Degree in Civil Engineering in 2011 and a Master's Degree in Civil Engineering in 2018, majoring in Geotechnical Engineering, both from Saitama University, Japan. He is currently a PhD candidate at University Malaysia Pahang (UMP). He is a Professional Engineer from the Board of Engineers Malaysia, and a member of the Japan Society of Civil Engineers (JSCE) and the International Geosynthetics Society (IGS). His research interests include Housing Quality, Homebuyer's Rights, and Housing Legislation.



Liyana Mohamed Yusof received a Bachelor of Science degree in Architecture in 2006 from Universiti Teknologi Mara, Malaysia. She received the Master of Architecture from the University of Adelaide, Australia in 2010 and received her Ph.D in Architecture from Deakin University, Australia in 2016. She is a senior lecturer in the Faculty of Civil Engineering Technology at Universiti Malaysia Pahang (UMP). Her current research interests include design for people with disabilities, accessibility in the built environment, and universal design in housing.



Rahimi A. Rahman received both a Bachelor degree in Civil and Environmental Engineering and a Master's degree in Environmental Science and Civil Engineering in 2014 from Saitama University, Japan in 2012. He received his Ph.D in Civil, Environmental and Sustainable Engineering from Arizona State University in 2018. He is a senior lecturer in the Faculty of Civil Engineering Technology at Universiti Malaysia Pahang (UMP). He has extensive experience serving clients in several industries on project governance, organization design, and talent development. His current research interests include project management and digital construction.