Valuers' Perception on Mitigating Material Uncertainty in Property Valuation

Abstract

Property valuation is the process of estimating the market price of an asset, especially one carried out by a professional valuer. The estimated price significantly affected by uncertainties in the market where the impact of these uncertainties will be reflected in the output figure, i.e., the valuation. Thus, careful consideration is essential for valuation assignment in the relevant market. The existence of recent or contemporary evidence, and the degree of trustworthiness of that evidence when determining the level of uncertainty at a specific valuation date is a requirement to minimize the level of material uncertainty in property valuation process. In this context, the main purpose of this study is to figure out valuers' perception on best mitigation measures for material uncertainty in property valuation procedure. The population of the study are the professional valuers who engaged in property valuation in Sri Lanka; members of Institute of Valuers of Sri Lanka (IVSL) and Royal Institution of Chartered Surveyors (RICS). The sampling techniques of the study is cluster sampling and total of 270 members answered the questionnaire distributed via email. The analysis results confirmed that COVID-19 pandemic situation, valuation assumptions and clients' influence are major contributory factors on valuation uncertainty. However, the factor extraction and rotation confirmed that only uncertainty created by the COVID-19 pandemic situation and valuation assumptions are two significant elements on material uncertainty of valuation. The findings suggest that client influence may not be seen as a threat to the emergence of material uncertainty. Furthermore, the study identifies measures such as developing a digital land registration database, defining valuation procedures as per the guidelines of respective valuation institution, use of realistic valuation assumptions, and analysing long-term market behaviour are appropriate measures for mitigating material uncertainty in property valuation.

Keywords: Uncertainty, Materiality, Material Uncertainty, Property Valuation, Mitigation Procedures

1. Introduction

The market, income, and cost approaches are three well-known approaches to property valuation and identified as the main pillar to estimate market value. The entire valuation procedure is a rigorous testing heuristic approach where the valuer examines the authenticity of each evidence in order to determine the expected market price or value at the assessment date (Steinhardt, 2019). This is based on instinct, understanding, and competence of the valuer. Valuer uses similar data and adjust it with other market data to determine the current market price (Papastamos et al., 2018). Without proper investigation, a valuer would not just accept the data from similar sales. Although most valuers might be able to understand data similarly, this does not mean that all valuers will have the same opinion on a valuation. As a result, there will be ambiguity around individual appraisals. This has led to the widely held idea that valuers should be able to estimate values within a range of 5–10% of the mean value since it is widely recognized in the market. These guidelines seem to have been decided upon randomly. The argument is that any valuations that go outside of this range signal that valuers are being negligent in their estimation of values. Conversely, since the comparable properties, the market may have increased or declined, and the valuer will alter the assessment or evaluate of value in the market today, appropriately (Yoe, 2019). It is also possible that the

market is stagnant, and so prices have not really moved since the comparable traded, but this will be highlighted in the valuation assessment because putting the valuation in reality is crucial to a successful appraisal (Byrne, 2002). Thus, comparable evidence are important part of the valuation procedure, but they are not the only factor. It takes a lot of skill to read and intuitively analyze similar data. Its seeming simplicity conceals the true intricacy of the situation (Baum et al., 2017). As such a valuer has to play a role of applied economist who uses a variety of market information to estimate today's price and estimate the value of the property based on his knowledge on property market and expertness.

Market value is just an assessment of the exchange rate and has no expiration date. Any asset valuation provides the valuers' expert assessment of the price the property would obtain if offered in the open market on the day of the appraisal (Clarke & Low, 1993). Market values are not definite; thus valuations are required to provides expert price assessments at the time of the appraisal. A valuation is an assessment of the most likely of a set of potential consequences depending on considerations established during the valuation phase. This has usually been the issue; values have always been subject to uncertainty (Steinhardt, 2019). In valuation, uncertainty is an actual and ubiquitous occurrence. Uncertainty comes from reasonable sources that can be recognized (Bratten et al., 2012). They may be articulated in a practical way, and the process of identifying and describing uncertainties will benefit many customers while also improving the substance and reliability of the valuer's performance (Mallinson and French, 2000). Uncertainty has two effects on the procedure: first, the cash flows from investments are unclear to variable levels, and subsequently, the consequent value number is also uncertain (Hafner, 2017). In this regard market values are projections of the most likely price charged in a trade on the date of valuation. However, even when resources are similar and traded in the same operation, price changes between transactions are frequently seen (Papastamos et al., 2018). These oscillations might be driven by reasons such as discrepancies in the participants' aims, understanding, or commitment. Consequently, most market values contain a degree of uncertainty since there is often a single price against which the valuation can be evaluated. A variety of variables might contribute to valuation uncertainty (Cole et al., 2013). These may be generically classified as follows: market instability, input access, and model technique selection. These sources of value uncertainty are not strictly independent (Hamilton, 2011). For instance, market instability may influence the provision of key information, creating ambiguity about the best approach or model to apply (Pellatt, 1972). Interaction and relationship among the sources of uncertainty are consequently expected, and this should be considered throughout the valuation procedure.

However, the current scenario with the COVID-19 pandemic, which has triggered the global decline of 2020, has compelled the valuation sector to see the market via the lens of material uncertainty; unpredictability that is greater than that encountered in "normal" marketplaces (Kim, 2021). Such uncertainty stems not from the valuer's competence, but from a paucity of similar knowledge in the market. Since March 2020, there have been no operations or property transactions in certain parts of the world, and previous estimates or pre – COVID information does not indicate the effect of the economic slump on asset values. Consequently, the valuer has less or no comparable sales to use as "signposts" in determining the market value of the subject property. Conversely, the valuer must depend on and examine any other market signposts that may indicate where market rates are at that particular point of time (Rybina & Poyarkov, 2021). These might be different types of market data, such as asking prices for comparable assets, buyer inquiries, or a variety of other indications within a structure. Not all comparisons are equal, and the real estate industry understands that certain evidence is more relevant than others. Market transactional information is usually chosen as

the primary signpost in a typical open market, but in more impenetrable markets, these additional market signposts will require to be given higher weight (Hermawan, 2022). However, when the information employed shifts aside from the comparable reliability of transactional material, the valuation's confidence diminishes. In severe instances, such as the present COVID-19 dilemma, the level of uncertainty might rise to the point where the valuer must tell the customer of the scenario. To mitigates these issues the RICS (2020), has set standards for alerting clients of appraisals that "less confidence and a stronger level of concern should be associated to the assessment than would ordinarily be the case". This briefing discusses valuation uncertainty, material uncertainty, and the significance of communicating to clients not just the market value number, but also the economic background and significance of market price. This reality is acknowledged by the RICS Mallinson Report, although it has been proposed that the uncertainty may vary depending on the state of the market and that valuers should somehow measure it.

In the meantime RICS (2020) introduced criteria for valuer to follow at valuation to declare the material uncertainty which includes, (a) observation of any evidence of disruption to market due to one or more unforeseen events, accompanied either by lack of data and an unprecedented set of circumstances, (b) degree of uncertainty in [the] valuation [that] falls outside any parameters that might normally be expected and accepted or, (c) the valuer's concerns about the greater degree of subjectivity involved in the valuation need to 'be expressly signalled in the report. These guidelines give roadmap to the valuer to how to deals with material uncertainty in valuation. However, it is noted that valuer should ensure proper mechanism to with the focus on the particular asset, individual circumstances and jurisdictions which will vary from region to region or country to country. Therefore, the main aim of this study is to analyse key material uncertainty factors and preventive measures adopted by the valuers in Sri Lanka to reduce material uncertainty in property valuation process in Sri Lanka.

2. Literature Review

2.1 Valuation

The relevance of valuation has increased as the real estate industry has grown. Investors want to know what a property's future value will be, and buyers and sellers want to know how much money they will need to commit or create in the future (Damodaran, 2012). Accordingly, professional specialists who determine the value of a property are known as valuers define value as "the current price for future rights to obtain income and/or capital (Koller, et al., 2010; Brown et.al 1998). The fundamental purpose of both property valuation and appraisal is to determine the capital amount that equals the specific worth of the pertinent property, or the benefits derived from its occupation (Carver, 2011). Valuations were usually performed for a specific reason, and the methods used had to be acceptable. Valuers should be kept distinct from real estate salespeople who sell and purchase assets on contract. Most property valuers and real estate agents have a better understanding of the property market than the suppliers and buyers (Turgut, 2002). The fundamental distinction is that the real estate agent seeks to operate entirely in his or her own best interests, whereas the person that contracted the service and valuer acts in a balanced capacity to determine the property's fair market value. As property valuation, on the other hand, is more of an art than a science (Bowman, 2002), valuers' mathematical ideas and computations include subjective views based on market awareness and evidence. When the same property is evaluated by two distinct valuers, and they develop a number based on market knowledge and other factors, and the two values will not be equal. To get a perfect value for a certain property, it is

necessary to conduct a comprehensive inspection procedure and to have a solid principal understanding of valuation (Reid, 2002). In this case, valuers must include only important criteria in their calculations and exclude irrelevant aspects. Therefore, this process is become a complex process.

2.2 Risk and Uncertainty

In the real estate market, investors are primarily interested in assets that offer a higher return on investment (Clarke and Low, 1993). This appears to be primarily focused on determining the appropriate amounts of return and risk. The terms "risk and uncertainty" apply to the same thing in academia and real estate. However, this raises disagreements in identifying the main issue (Mallinson and French, 2000). Initially, the major topic was to define the words "risk" and "uncertainty," and numerous books and articles were written to do so (Fleischhacker and Fok, 2015; Sawai and Rathore, 2018). Risk is described as a circumstance in which different outcomes and their probability are known, but in the case of partial uncertainty, some of the alternative possibilities are known but not their chances (Davidson and Levin, 2014). Conversely, uncertainty is defined as anything concerning the result of an undertaking whose nature is unknown at the moment the choice is made (Fleischhacker and Fok, 2015). In traditional investing and finance theory, the risk contained in an asset is defined as the unpredictability of the returns. Moreover, some studies suggest that risk and uncertainty cannot be technically articulated but only in intuition (Gollier et al., 2004; Armantier and Treich, 2004; Dibra, 2015).

In terms of valuation, there is always uncertainty. Uncertainty refers to the likelihood that the valuer's perception of the market value will exactly correspond with the price obtained if a sale occurs on the date of valuation (Mallinson and French, 2000). Most of the time, market movements may be witnessed, but they remain within the bounds of a regular market. However, at times, a negative market may emerge, and typical market circumstances may stretch beyond the borders. For example, changes in government policy, a pandemic crisis like COVID-19, mathematical mistakes owing to incorrect implications, and so on (Rybina and Poyarkov, 2021). However, the market's character strongly influences the certainty of these two factors. The valuer makes the best judgement on each variable, but in a decline, the absence of knowledge about the specific attribute creates uncertainty. After 2007, most critics agreed that valuers required focusing more on feelings than comparability. In 1985, Hager and Lord conducted research to determine whether valuers have comparable viewpoints on a property. According to the study, when multiple appraisers assess the same property, the market value they arrive at varies by 5% from the base value. This does not indicate that valuers have the same opinion about the property as others. This might be one of the causes of the uncertainty. It argues that valuers may be able to value the property within a range of 5–10% of the mean value, and those valuers who fall outside of this range have been neglectful in their valuation assessment (Hager and Lord, 1985). Furthermore, value uncertainty might be generated by a lack of expertise and weak or incomplete information about the feature. The outcome of a valuation can be definite if it can more correctly forecast the future. Indefinitely, there is always a possibility that the real value will deviate from the expected estimate. The RICS's original approach was to include provisions in the standards requiring the valuer to note "substantial uncertainty" when a specific characteristic or attribute cannot be quantified confidently or precisely (French, 2003). Mallinson's ideas (Brown et.al 1998), addressed not just material uncertainty but also intrinsic values. However, RICS, as well as client advocates, are staunchly opposed to this. Their objections were limited to exceptional scenarios with a potentially much larger margin of error (Rispin et al., 2021). From the client's standpoint, they want the valuers to predict a specific and

correct amount of worth with no doubt. However, a rational person will be aware of the valuation uncertainty. Certain clients are unconcerned by uncertainty, as they demand no action but merely a figure. However, others may plan to purchase or sell property based on the valuation figure. Therefore, they will be concerned primarily with the materiality of uncertainty. Thus, if the profession demands knowledge of uncertainty, then knowing and detecting uncertainty is extremely important to both the customer and the valuers.

2.3 Material Uncertainty

The term "material uncertainty" does not have a defined meaning due to market is not in a static state. As a result, the risk contained in valuation will prefer to emerge in a rise or reduction in the valuation of the property asset. It is critical that the valuer state the date of valuation that the procedure was completed (French, 2003). As valuation is not a reality and it is only an estimate of the value of a property based on verifiable and quantitative compliances, the valuer must determine whether it is appropriate to issue a valuation warning due to valuation uncertainty. As previously stated, multiple comparable terms might be used to convey the same basic concept. The term "material uncertainty" refers to the possibility that the Valuer's professional perception as to the Market Value of the property may diverge from the price that could be obtained in a transition of the asset as of the valuation date, supposing all other market trends and variables remain constant (Mallinson and French, 2000). Any valuation figure will be subject to uncertainty. Because valuers assign a value to a certain property based on market knowledge, and the market fluctuates over time. Consequently, it is critical as a valuer that these market developments are revealed to the necessary parties since their decision-making mechanism is dependent on it. The valuer must consider various factors before declaring significant uncertainty such as a) there is evidence of market disruption caused by one or more unplanned occurrences, accompanied by either inconsistent, or an absence of, data and an unprecedented set of circumstances on which to form a judgment; b) there is a degree of uncertainty in [the] value that goes beyond any boundaries that would ordinarily be expected and acceptable and c) there is a degree of uncertainty in [the] value that exceeds any normally expected and acceptable limitations. These variables were discussed in a RICS Material Valuation Uncertainty Leaders Forum (UK) and highlight certain key issues that will produce considerable ambiguity in the valuation report indefinitely.

Furthermore, the "RICS Valuation - Global Standards" standards have provided several examples of considerable uncertainty in the valuation report. The 2.2, 2.3, and 2.4 in VPGA 10 (RICS, 2021) define where significant uncertainty can occur: a) the asset or obligation has a distinguishing feature in which the valuer is unable to form an opinion using appropriate procedures; b) where market information is constrained or constrained, either by the customer or by other valuation factors and c) when the market is disturbed by unexpected financial, macroeconomic, legal, political, or natural occurrences (RICS, 2020). In light of the worldwide pandemic scenario, the RICS has issued a statement to members addressing the material uncertainty factor as of mid-March 2020, requiring members to indicate substantial uncertainty in valuation reports (Rispin et al., 2021). If considerable uncertainty is expressed, it should be mentioned directly, and RICS has proposed a type of phrasing that may be utilized. According to RICS these warnings were only utilized on a few times, illustrating the need of reporting substantial uncertainty items in the valuation report (Kim, 2021). RICS guidance on the pandemic scenario has been revised in the year 2020, and a Material Valuation Uncertainty Leaders Forum will be convened in May 2020 to assess the present

uncertainty factors. They have also uncovered numerous additional asset types that do not require the material uncertainty caveat. There will be uncertainty in the current market scenario, and values will decrease outside of regular market circumstances. The valuers must grasp the situation and respond in accordance with the RICS principles. As a result, it is critical that the valuer indicate the uncertainty that the figure or report contains. However, certain users or clients who are unfamiliar with the appraisal procedure may be perplexed. Hence, users must have faith in the valuer who performed the valuation (French, 2020). However, the primary aim of this study is to determine which mitigation strategies valuers believe are the best in the event of material uncertainty in valuation.

In this context, the study identified three probable reasons, all of which will result in major uncertainty factors such as pandemic situation, valuation assumptions and clients' limitation. The valuer required to review the (a) uncertainty due to the Pandemic, (b) valuation assumption and (c) client Influences before disclosing material uncertainty

2.3.1 Uncertainty due to the Pandemic

The COVID 19 pandemic has created issues for every profession in the world. The impact and damage have been multi-faceted. The difficulties that the real estate market and valuation industry face are indisputable. Any expert valuation should be based on realistic market facts and be objective. Independent and unbiased valuation informs the transaction's parties about the property's actual potential value and potential investment risk, removing the problem of asymmetric information and lack of transparency in the real estate market and, as a result, lowering transaction costs, shortening negotiations, and expediting transaction execution.

Valuers in 2020 encountered a number of challenges when it came to carrying out the directives they were given. The most significant of these was the lack of access to public organizations and offices that have large databases of property information and market transactional data. Valuers rely on a variety of sources of property information in normal conditions (i.e., before the pandemic) to effectively do the valuation and achieve a trustworthy result. These are data that can be used to verify the property's legal, technical, and planning status, as well as transactional data from comparable properties that can be used to determine the property's value. Typically, these are data that valuers get in the form of extracts and papers at the office. Applicants were not accepted inside offices during the shutdown period of the pandemic. There was no way to get valuable information in person (Horvat et al. 2021). This could only be done remotely, by ordering data over the phone or through the internet, which required many weeks instead of one day, considerably delaying the execution of orders. It is essential to use reliable and consistent market transaction details as a primary input to the valuation process. With the impact of the COVID -19, the reliability of the transactions was called into question, and it is necessary to determine whether this will result in a material uncertainty in the valuation figure. According to the RICS, (2020) this creates a negative impact on valuation uncertainty.

2.3.2 Valuation Assumption

RICS and other professional institutions worldwide recommended to use valuation assumption at the valuation process. Assumption is made where it is reasonable for the valuer to accept that something is true without the need for specific investigation or verification. It involves facts, conditions or situations affecting the subject of, or approach to, a valuation that, by agreement, do not need to be verified by the valuer as part of the valuation process. Typically, an assumption is made where specific investigation by the valuer is not required in order to prove that something is true (RICS, 2020). In the meantime, valuer has the right to use special assumption, which is either assumes facts that differ from those existing at the valuation date or that would not be made by a typical market participant in a transaction on that valuation date. Special assumptions are necessary in order to provide the client with the valuation required, and these must be expressly agreed and confirmed in writing to the client before the valuation report is issued (RICS, 2020). However, it is noted that special assumptions may only be made if they can reasonably be regarded as realistic, relevant and valid for the particular circumstances of the valuation.

In general, the assumptions that valuers may make in their day-to-day valuation process includes purpose of valuation, trustworthiness of the data sources used for valuation, and future environmental changes (RICS, 2020). All key assumptions and specific assumptions made by the valuer must be disclosed in adequate detail in the valuation report. A substantial assumption is one that has the potential to have a major impact on value, or one where a reasonable adjustment in the assumption could materially affect the accounting estimate's measurement. A particular assumption is one in which the assumed facts differ from the existing facts, usually to highlight the impact of a change in the current situation (for example, assuming a proposed building was finished or a tenanted property was available for vacant possession. As a result, the valuer must apply the appropriate assumptions to the property to be evaluated. The assumptions must also be revealed to the customer and other interested parties so that they may see what the major valuation assumptions that are were utilized to estimate the value. This might have an impact on material uncertainty on valuation

2.3.3 Client Influences.

Brunswik (1956) demonstrates that clients or relevant parties did not have access to relevant information regarding the subject property in the early days. However, as valuation technology advanced, a variety of models were utilized to determine the property's market value, and Gallimore and Wolverton (1997) demonstrated that using the market approach leads to bias. Furthermore, according to Levy and Schuck (1999), the use of additional information on the subject property will cause bias in the property market (Yao Chen and Ming Yu 2008). Furthermore, it has been discovered that the client's impact might be used as extra data.

Fletcher and Diskin (1994) mention that mostly mortgage valuation carries the client's influences with the motivation of increasement of mortgage loan value (Fletcher and Diskin 1994). Also, Smith (2002) says that 98% of valuers in United Stated are able to offer a higher range of values according to the client's expectations, in the thriving market. Sometimes the pressure which the client strives upon on the valuer is delicate and unintended. According to Levy and Schuck (1999), they have certainty that valuation figures may be influenced by clients, and they have confirmed it with studies which were carried out by interviews in New Zealand valuers. According to the Amidu and Aluko (2007), valuer and valuation firm characteristics, external characteristics, clients characteristics, and valuation characteristics influence the valuation. Refer Figure 1 for details

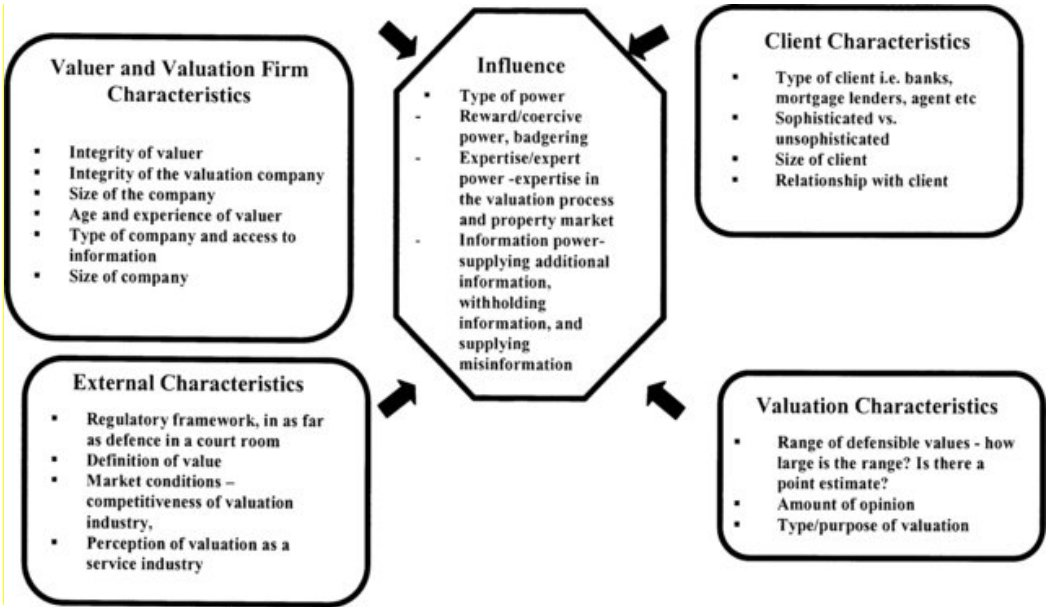

Figure 1: Factors affecting client influence as reported by valuers

Source : Amidu and Aluko, (2007)

According to Levy and Schuck (1999), a valuer's estimate of a sector may be influenced by a relationship to facts, which is a result of the client's pressure. The following diagram depicts "Opinion Shopping," in which valuers provide information about a specific valuation procedure and help clients develop trust in the valuation process. In addition, before agreeing on the final valuation amount, the valuer usually sends the customer a draft valuation report. However, the customer has a tendency to sway the valuation amount, resulting in a loss of business for the valuer. As a result, it's critical to determine the level of access to information that can affect the valuation figure. Refer figure 2 for details

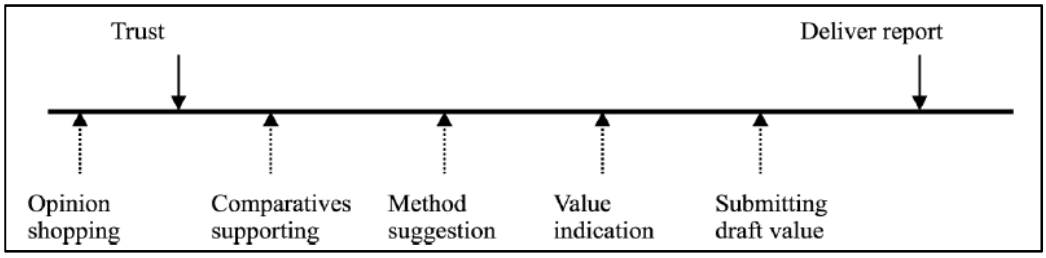

Figure 2. The opinion Shopping Process

Source : Yao Chen and Ming Yu, (2008)

In this context, the study able to define three factors which leads to material uncertainty as uncertainty created by the COVID 19 pandemic, valuation assumptions and client influence.

3. Methodology

3.1 Population and sampling

The total population of the study defined as the professional valuers who engaged valuation consultancies in Sri Lanka. This includes members of the Institute of Valuers of Sri Lanka and the members of Royal Institution of Chartered Surveyors, United Kingdom who practice valuation in Sri Lanka. As per the publicly available information, there are 43 RICS members and 650 IVSL members. Thus, total population is estimated as 693 individuals. The sample size had to be precisely estimated using the standard deviation at the 95 % confidence level (1.96), which equals to 270. The researcher used convenience sampling techniques to gather data.

3.2 Data Collection and Analysis

The researcher used a self-administered questionnaire created expressly for this study to collect data. This study questionnaire has 24 closed - ended questions with many sub items and 10 open - ended questions. The questionnaire that was created for this study was emailed to selected clusters. After sending 587 Google forms to IVSL and RICS members in Sri Lanka, the study able to reach 291 which is supportive for 270 sample size. Factor analysis and used to evaluate quantitative complications.

4. Results and Discussion

4.1 Demographic Profile

The questionnaire was widely dispersed among male and female respondents, with 65 % being male and 35 % being female, indicating that gender biases were avoided. Subsequently, the age requirement has been divided into five groups by the researchers, so the questionnaire may be employed by anybody of any age who is properly competent. The majority of those who completed the survey are between the ages of 41 and 50, representing for 40% of the total. With 32 % replies, the age group between 31 and 40 has the second-highest number of responses. The age group between 51 and 55 has the lowest response rate, with only 6% participants responding. In terms of educational level, the plurality of the sample 71 % of the total respondents have a bachelor's degree. The remaining respondents had completed a master’s degree, a diploma, or a doctorate, accounting for 26%, 2%, and 1%, respectively. This survey is mostly sent out to professional valuers who hold RICS, IVSL, or both credentials. The majority of the valuers in this sample group have the IVSL professional certification, which accounts for 83.6% of the total, while 18.2% members have the RICS professional qualification. According to the sample population, the plurality of the valuers has between 10 and 15 years of experience, which accounts for 27.3%. The least amount of experience is 6–10 years, which comprises 14.5 % of the total replies.

4.2 Descriptive Statistics

The mean values, standard deviation and central tendency metrics are used in frequency distribution analysis to measure each variable namely; uncertainty due to the pandemic, valuation assumptions an client influence. The values are appropriate to continue the study based on the measurements. Refer Table 1

Table 1: Descriptive Statistics of Variables of the Study

	Mean	Std. Deviation
Do you believe that valuation may carry a material uncertainty factor in this pandemic situation	3.29	0.786
When using such assumptions would it lead to material uncertainty in the final valuation figure	3.60	1.047
The client's influence being a factor to the arise of material uncertainty to the valuation report	3.38	0.952

Source: Survey Data, (2022)

The mean values of each variable reflect above 3 means the moderate influence of the scores to the study. Normally, the standard deviation should be less than 2, and if it surpasses 2, significant volatility in the mean value may be expected. Table 1 shows that the largest standard deviation value is 1.047, which is in valuation assumptions, while other variables have standard deviations of less than 1. Low standard deviations indicate that the data is grouped around the mean value, whereas high deviations indicate that the data is spread away from the mean value.

4.3 Kaiser-Meyer-Olkin measurement (KMO) and Bartlett's Test

Kaiser-Meyer-Olkin measurement (KMO) used to measure of sampling adequacy to assess the appropriateness of using factor analysis on the data set and Bartlett' test of Sphericity used to test the null hypothesis that the correlation matrix is an identity matrix.

KMO values closer to 1.0 are consider ideal while values less than 0.5 are unacceptable (Yong and Pearce, 2013). Bartlett' test of Sphericity test statistic follows a Chi-Square distribution with k-1 degrees of freedom. If the p-value that corresponds to the test statistic is less than some significance level (like $\alpha = 0.05$) then study can reject the null hypothesis and conclude that not all groups have the same variance. The outputs of the data analysis are displayed in the Table 2

Table 2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.566
Bartlett’s test of Sphericity	
Approx. Chi-Square	7.941
Bartlett's Test of Sphericity – df	3
Sig	0.047

Source: Survey Data,2021

As per the results given in Table 2, the Kaiser-Meyer-Olkin measure of sampling adequacy is 0.566, which is over the recommended value of 0.5, thus, the sampling adequacy in this case exceeded the suggested value. Then, the significance level for Bartlett's test of sphericity confirmed the acceptance level as it is less than 0.05, indicating that there is a pattern to the data. Therefore, it concludes that it is suitable to run the “factor analysis” for this collected data

4.4 Factor Extraction and Rotation

Two significant components with eigenvalues greater than 0.85 were retrieved in Table 3. Those two factors, namely uncertainty due to the pandemic and valuation assumptions account for 77.49% of the overall variation, according to the retrieved components. The pandemic scenario and valuation assumptions are two important elements that have been extracted, with eigenvalues of 1.444 and 0.880, respectively. Surprisingly, the findings suggest that client influence may not be seen as a threat to the emergence of material uncertainty. According to the respondents, 51% believe that the influence of clients will have no meaningful impact on the valuation number. Table 3 demonstrates that it did not exceed the 0.85 threshold for the base eigenvalues.

Table 3: Total Variance Explained

Factor	**Initial Eigenvalues**			**Extraction Sums of Squared Loadings**		
	Total	**% of Variance**	**Initial Eigenvalues**	**Total**	**% of Variance**	**Initial Eigenvalues**
Uncertainty due to the pandemic	1.444	48.138	48.138	0.738	24.604	24.604
Valuation assumptions	0.88	29.346	77.485	0.059	1.958	26.562
Client influence	0.675	22.515	100			

Source: Survey Data, (2022)

It is obvious, in the view of the valuers, that a valuation report can contain considerable uncertainty in some circumstances. In addition, scholars, recognizing that material uncertainty cannot be completely eradicated from a value number. However, it can minimize or maintain a particular limit within which the valuer is pleased. Essentially, this tolerance rate provides satisfaction to the valuer, allowing the valuer to express a "give or take" sort of number in the report. Thus, the valuer may disagree about whether the tolerance level should be standardized. Alexander Joslin performed a survey in 2005, and according to the findings, percentage of the respondents believe the tolerance limit should be in place, although many believe it should not be standardized.

Many of the participants underlined the following points as mitigation strategies for the material uncertainty,

— Create a transparent digital land registry database that needed to update regularly and collect data accurately. This can be easily used afterwards for any valuation purposes and the accuracy will be high as well.
— Identification of valuation process and follow the guidelines for each step accurately which provided by the governing bodies to the valuation profession. (Ex - Inspection process needs to be done according to the guidelines of RICS)

— Always back your assumptions with actual market transactions and figures. Have a defensible basis for each of your arguments to avoid subjectivity in your valuation.
— Analysis long term behaviors of the market. Ignore the short-term market changes due to the government policies or any other short term scenario identification resilience capability to the adverse environment of the market.
— Comparing trends of the present and past transactions, rentals and rate of return used accurate evidence.

The researcher has now achieved the goal of identifying material uncertainty and mitigating factors.

5. Conclusion

This study focuses on the significant uncertainties that valuers may face during the valuation process, as well as the most common mitigation measures that may be developed to address this issue. The study's findings show that, among the three elements, the pandemic scenario and valuation assumption factors are both substantial contributors to material uncertainty and this was discovered using factor analysis. Surprisingly, the results suggest that the Clients Limitations have no meaningful effect on the materiality element. According to several articles and authors, this component might cause considerable uncertainty in a valuation figure.

The outcomes of this research study suggest new perspectives on the profession and will raise awareness among the valuation profession's regulating authorities. First and foremost, the valuer appraiser has determined the major sources of material doubt. Local governing authorities were required to revise the rules and regulations since they had the greatest picture of the region and practical constraints in the area. Second, several of the respondents who took part in this study classified a modernised digital land transaction system as a top priority. The majority of the appraisals were based on market comparables, and the survey found that most valuers struggled to discover meaningful market comparables. Accordingly, this paper explains how professional bodies throughout the world are directing their members on how to declare valuations and market value in the face of material uncertainty.

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Competing Interests

Authors have declared that no competing interests exist.

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