# Influential Factors on the Effectiveness of Land Title Registration Program in Sri Lanka: Professional's Perspective

*N.C. Wickramaarachchi[1], K.W. Namasinghe[2]

[1] *Department of Estate Management and Valuation, University of Sri Jayewardenepura, Sri Lanka*

*nishani@sjp.ac.lk*

[2] *Urban Development Authority, Sri Lanka*

*wnkushanki@gmail.com*

## INTRODUCTION

Registering the rights to land became much popular in the 20th century which confirms the access to a legally acceptable interest in land. Registration provides prima facie evidence to the title to land and protects the owner from unlawful eviction (Zevenbergen, 2002). In fact, the rights of land are registered, the land-owner can enforce its full power. A person must be able to prove his or her ownership of the property to protect the property grabbed by others. Accordingly, land registration can be defined as the backbone of the land administration process of every country. Land registration is defined by Dale & McLaughlin (2000) as "public sector operations" that are required to improve basic land functions such as land transfer, land usage, land development, and land valuation. In the world, commonly used three basic types of land registration systems, viz private surveying system or private conveyance system, the deed registration system, and the title registration system (Dale, 1999). Land title registration system is a technique for the documentation, formalization, and certification of land titles and ownership rights. The main objective of land title registration is to protect property rights, facilitate transactions in land, and enable land to be used as collateral for a loan which should be simple, reliable, prompt, affordable, and well suited to the society it serves.

In referring to the land registration system of Sri Lanka, there are two systems as the deed registration system and the title registration system. The deed registration system has been implemented under the Document Registration Act of 1927 which was introduced for the document of transaction of land (Henssen, 1996). However, the system of deed registration is flawed, and therefore a new system of title registration was placed with the Registration of Title Act No. 21 of 1998. The title registration system was commenced under the World Bank funds of "Learning and Innovation Project" titled as the "Sri Lanka land titling and related service project" in 2002. Afterward, the title registration system was re-titled as "Bim Saviya Program" in 2007 and the Ministry of Land and Land Development implements that in the country (Bim Saviya, 2020).

Bim Saviya program was introduced to provide stronger and clear confirmation to land rights and sort out many ownership issues so that it will help on improving land utilization and development while avoiding unessential quarrels owing to boundaries or land ownerships (Bim Saviya, 2020). The main benefits and attributes of the Bim Saviya program can be reflected as government-guaranteed title, delivering accurate information of the land by the title certificate, higher recognition for the title certificate than the deed certificate, and minimizing the land disputes, fraud, and irregularities. The project planned the expected completion of land titling registration to cover around 12 million lots in the country by the year 2020, however, the completion rate is yet beyond the target number.

Despite the posited benefits, the current system has been questioned owing to the paradoxes between lands titling projects and the outcomes, credit access, poverty alleviation, and all above the productivity measures. The main problem of the title registration system in Sri Lanka is insufficient progression (Divithure, 2013). The success of the land registration project depends on several factors. Prior studies concerned the infant stage of the program, however, there is little evidence on recent research on the contributory factors to the effectiveness at the matured stage of the program from the professional point of view in Sri Lanka. In fact, the available studies are from the end-user perspectives. Therefore, this research is focusing to analyse the professional perceptions on the factors that involve the effectiveness of the title registration system in Sri Lanka taken into consideration of seven factors to fulfil the above-mentioned knowledge gap. Furthermore, this study expects that the findings will be useful to improve the system and encourage an effective and successful land title registration system in Sri Lanka.

## LITERATURE REVIEW

### Land Registration System

Generally, land registration is defined as making a record of property rights. According to Nichols (1993) land registration is explained as “the official, systematic process of managing land tenure information that has been chosen to encompass a wider range of interests and information”. In referring to Zevenbergen (2002), land registration is the process of recording legally recognized interests (ownership and/or use) in the land. The term ‘registration’ stated an active process, whereby the result should be named a ‘register’, and an organization used this as ‘registry’. As per the literature synthesis, this system is a complex process and it indicated a lot of aspects viz Socio-cultural, technical, legal, organizational, and environmental (Zevenbergen, 2002). However, the security in tenure with government assurance is the major outcome of a proper land registration system. In the world, commonly used three basic types of land registration systems, viz private surveying system or private conveyance system, the registration system of the deed, and the registration system of title (Hanstad, 1998; Kaddik & Rydberg, 2013).

**Land Registration in Sri Lanka**

In ancient Sri Lanka, all lands were under kingship and the king was the sole owner of entire lands. However, people had access to use the land only with the king's grace either for payment or in return to 'service'. The grantee had to perform the service known as 'Rajakariya' to the grantor. In fact, even in this primitive period where technology was at its infancy, there was evidence of registration of these land transactions. Land distributed on the basis of the service concept was recorded in a Copperplate called 'Sannasa' and was entered in a land roll called 'Lekam miti' (a document written on 'ola leaf'). Under the Colonial rule, the Portuguese introduced a recording system known as 'Thombus' in the areas they had ruled. A formal, commencement of land registration was introduced by the British in 1863 by the Land Registration Ordinance No 08 of 1863 (Perera, 2010; Divithure, 2013). During this time both the deed and the title registration system were introduced by the British, but the latter was not well proceeded. Meanwhile, though the deed registration system is well-established in the country it is also insufficient to fulfil the land registration requirements in the country (Divithure, 2013). Thereafter, the registration of the deed system was declared as per the Registration of Documents Ordinance No. 23 of 1927 by the government. A deed registration system means the deed itself, being a document, which describes an isolated transaction, is registered. The deed is evidence for a particular transaction, but it is not proof itself for the legal rights of the involved parties. Accordingly, it is not evidence of its legality. Also, safely effectuated any deal, the ostensible owner must trace his ownership back to a good root of title (Zevenbergen, 2002). Although the deed registration system continued covering all over the country, many problems and pitfalls have been identified in Sri Lanka which can be listed as, the uncertainty of ownership, difficulties in delays in finding related documents and lengthy procedures to prove ownership, avenues for fraud in the system, difficulties to identify the actual land and boundaries, re-establishing boundaries may not be possible and boundary disputes causing negative social impacts, etc. (Rubasinghe, 2010; Kirubananthan, 2013; Zainudeen, 2016).

Consequently, the title registration system has been introduced under the Registration of Title Act No. 21 of 1998. The title registration system was designed to avoid the deficiencies of deed systems, being more accurate, secure and to simplify the whole process of transactions with properties (Kaddik & Rydberg, 2013). Land title registration provides an avenue to land development and personal development through clear ownership of land to support the positive socio-economic development of the country by providing necessary information for better land management (Fernando, 2017). In fact, the main aim of the title Registration System was to establish a complete database on the land resource of the country and the appropriate land management. Accordingly, it targets to improve tenure security, reduce poverty, improve governance, improve the property market, and make land management sustainable. The success and failure of the title system depend on the extent of the strength of local law and the three fundamental principles of local administration consensus. Mirror

principle being the first means that the register is reflecting the current correct legal position; secondly, the curtain principle covers t all previous historical events and former transactions are blocked out by the registered title; and the insurance or guarantee principle being the third means that the state ensures that registered information is true and provides compensation if not. However, there are a few challenges in the title registration system such as the conversion of registered deeds, preparation of parcel plans and search reports, and fees for registration, inadequate public education, and lack of cooperation among land agencies (Sittie, 2006; Kirubananthan, 2013; Zainudeen, 2016). Currently, the title registration program in Sri Lanka has been re-titled as the "Bim Saviya Program" since 2007.

The Ministry of Land and Land Development implemented Bim Saviya Program, expected to complete by 2020 covering the whole country (Bimsaviya, 2012). The title registration program has introduced a systematic approach to certifying lands in selected areas of the country. Thus, it comprehended three main objectives: Introducing title registration in place of deed registration practiced at present; Settling or planning to settle the ownership of the lands which are presently unsettled and establishing a Digital Land Information System. The expected outcome of the program has been categorized as per direct and indirect benefits (Kaddik & Rydberg, 2013; Kirubananthan, 2013) as follows. The direct benefits are, (a) Ensuring secure free titles, (b) The state assures the validity of the title, (c) Making legal advice unnecessary on land transactions, (d) Enhancing transaction time and reducing transaction costs, making mortgaging easier with no need of researching the history about the ownership or producing a survey plan, (e) Making ownership clear of undeveloped land where ownership is unclear and thereby enable land development and easier transactions, (f) Minimizing land disputes, (g) Making land management and administration easier with a nationwide register which provides land-related data The indirect benefits are, (a) Long term reduction of poverty, (b) Reduction of forgeries in land transactions, (c) Increasing the economy for landholders, and therefore enhancing the nation's economy and (d) strengthen the land market (Kaddik & Rydberg, 2013; Kirubananthan, 2013).

**Factors Influencing Land Title Issuance Process**

Navigation through a wide range of literature, researchers have discussed different facts relating to the effect on effective land title registration process. Since the 1990s, the studies more comprehensively presented the social and economic factors of effective land title registration mechanism due to lack of economic and social power within the community. For instance, Binswanger et al. (1995) discussed that less economic growth in third-world countries is associated with the non-existence of effective and strong land management systems and lack of secure property rights. At the same time, Feder & Nishio (1999) studied the effects of the land title registration system and noticed nine substantial matters that influenced effective land title registration from the economic and social point of view

viz., cost of land title registration, transaction, simplicity of land registration procedure, speed of title registration delivery, transparency of land registration activities and ease of access to the land registry.

The findings of contemporary literature were not limited to social and economic factors but explores other factors like technological, institutional, as well as administrative, factors. Kuntu-Mensah (2006) argued that the factors of institutional, technological, and financial constraints are having a direct impact on the effective land registration system in Ghana. On similar grounds, Lastania-Conhiel, (2009) showed that how institutional and land registry factors are influenced on effective land registration system in Osun State, Nigeria. Recently, Ekemode et al., (2017) identified the factors' effect on the effective title process in Osun State. The findings comprehensively elaborated the factors of economic, social, institutional, administrative, and bureaucratic bottlenecks, technological, financial constraints, and socio-economic background of end-users as direct affecting factors on land title issuance process in Osun State.

Inland management literature in Sri Lanka, examined the factors that affected effective land title programs from very few prior studies. Rubasinghe (2010) mentioned some significant factors that affect the acceptability, in other terms implying the success of the land title registration process in Sri Lanka, viz. technological or methodological, organizational, and lawful aspects of the system. Kirubanathan (2013) has stated that essential and immediate consideration needs to be taken for attitudes and perception, effective administration, awareness of the program, participation in awareness activities, and social aspects to achieve effective land registration programs in Sri Lanka. In a recent Sri Lankan study, Wickramaarachchi et al., (2021) empirically examined some major factors that may influence the successfulness of the land title registration system from end users' perspectives. The study established a high level of end users' dissatisfaction with the land title insurance process to factors, for instance, awareness and participation, transparency, access to land information system and access to information, cost, and efficiency. Accordingly, the preceding reviews verified that plurality of these studies has concentrated on end users' perspectives in the land titling registration process while ignoring the professionals who are the most important stakeholders allied in the process. Therefore, this study effort to fill this gap by examining factors that affect the effectiveness of the title registration system in Sri Lanka from the perspectives of professionals. The study selected the most appropriate factors in relation to the context of the Sri Lanka land titling program, where the awareness of program and participation in awareness activities, administration, attitudes and perception, social, technological, legal, and access to information factors were mainly considered.

**Awareness of the Program and Participation in Awareness Activities**

Thorough awareness of the program and associated benefits is a substantial factor that affecting for a positive receptiveness for the title registration system. Acquaint with land registration system must

ensure the exhaustive awareness of all parties involved in the process including the landowners, government institutions, etc. Unawareness of the title registration program from the point of landowners may defeat the positive response to support the process. The indicators of measurement as the level of awareness, include the participation in awareness programs conducted by the authorities, the standard of the awareness programs, and proper knowledge about the advantages of the titling program, (Wickramaarachchi et al., 2021).

**Administration Factor**

Activating effective administration provides positive benefits for the program. The skillful officers, sufficient equipment, and funds of the program are essential elements for successful administration. From the administrative point of view, it can be investigated positive outcomes of the process of land title program through less time consuming to the process, efficiency, high awareness, and coordination, etc. (Ekemode et al., 2017).

**Attitude and Perception**

Attitude is an emotional concern and is measured at the degree of pleasure or displeasure with the service. Perceptions refer to a way of regarding, understanding or inferring something. The definition of an officer's attitude and perceptions can be described as the officer's impression of participating and conducting effective land registration activities of the process. The training and skill development programs relevant to the officer's working performances and other facilities will maximize their positive attitudes and perceptions regarding the land title process. Accordingly, more positive attitudes and perceptions toward land title program is identified by the example of when officers are not afraid of the complexity of the program which will result in a more contested and effective land issuance program (Kirubanathan, 2013).

**Social Factor**

Social factors of land title programs are recognized as crucial aspects for development and community enhancement. The social elements are most neglected and the most difficult factors, to deal with in terms of composition, implications, and evaluation, especially because of the multifaceted and dynamic nature of society and its requirements. Although the government agencies of the title registration program have well acknowledged the social aspects, their core elements are remaining indeterminate. The provision of social factors such as affordability, fairness, equity, security, and wellbeing are identified as collective fundamental requirements of an effective land title registration program (Binswanger et al., 1995; Ekemode et al., 2017).

**Technological Factor**

Available technologies in most agencies are inadequate to match the current demand for land transactions. Many simple tasks take a long time because of the lack of appropriate tools and

technology necessary to execute them. And most of the staff members do not have adequate training in computer technology. Staff should be trained in information technology and computing procedures. Also, modern survey and digital drafting methods should be incorporated into cadastral mapping (Kuntu-Mensah, 2006).

**Legal Factor**

One main problem in the title registration system is a lack of a legal comprehensive approach (Rubasingha, 2010). Presently, there are too many institutes involved in the registration process. The actions of surveying, conveyance, and registration of land parcels are spread among different institutes resulting in duplication of efforts and delays. The registration of a lease on a stool land, for example, may involve the Survey Department, Town and Country Planning Department, Lands Commission, and the Land Title Registry, each of these successively depending on the other for some certificate. There is also a lack of coordination and adherence to the predefined roles and operational rules of the agencies. For instance, personnel other than licensed surveyors or agents of the Survey Department perform cadastral surveys which result in instances of multiple claims. On the other hand, the title Act introduce in 1998

**Access to Information**

This is one of the most imperative factors (Rubasingha 2010) of the land registration program. Also, land and related information of the process is an active device for other related factors of legal, administrative, and economic decision-making concerning the context of planning and development. The land and related information comprise two main sections, mainly database spatially references to land-related data and procedures and techniques for the systematic collection, updating, processing, and distribution of data. This factor has been included data updates, data sharing, access to public and publicity of information and source of the information about land titling program, the effectiveness of the booklet, information flow of the process steps, information about the gazettal cadastral map.

**METHODS**

The two types of research approaches viz., qualitative and quantitative research methods were utilized in the study to achieve the research objective of analysing the professional perceptions on the factors that involve the effectiveness of the title registration program in Sri Lanka.

**Case Study Area**

The land titling program is practiced in eighteen Divisional Secretariat Divisions (DSD), known as local level administrative units, in Sri Lanka. Out of these areas, newly implemented land tilting programs of Homagama and Moratuwa Divisional Secretariat Divisions were selected as the case studies of this research. Moratuwa DS division is divided into 42 Grama Niladhari divisions (village level administrative units) and includes 31 villages in 23.4 Sq.km land extent. Moratuwa is located 18.5 Km away from the capital city of Colombo, Sri Lanka. The population of the Moratuwa DS Area is recorded 168,280 in 2019. 60% of the highest total land area has been used for residential purposes while 7% is being used for industrial activities and 8% is utilized for institutional purposes. Thus, 2% of the lowest land area has been used for agricultural purposes. Homagama Divisional Secretariat Division consists of 81 Grama Niladhari Divisions in 118.15 Sq.km land extent. Homagama is located 21 Km away from the capital city of Colombo, Sri Lanka. In 2019, and the whole population was 279,236 in 2019. As per the records of land use pattern in Homagama DS Area 13% of the total land has been used for commercial and service purposes, and 43% of the land has been used for residential use.

**Population and Sample**

The target population of the study was professionals involved in the land titling program in Homagama and Moratuwa Divisional Secretariat Divisions. The sample size was 60 professionals selected using the purposive sampling method. Amongst 53% respondents have represented the Department of Land Settlement, 39% respondents have represented the Department of Survey, and the remaining 5% of the respondents were Ministry of Lands and Land Development, and 3% respondents were Registrar General's Department of Sri Lanka. In addition, 06 professional members, who are working in the Bim Saviya program were selected and interviewed to get their views on the same factors that were used under the quantitative methods to confirm any differences. The data collected through these interviews were analysed using the Qualitative Analytic Hierarchy Process (AHP). This is a method for organizing and analysing complex decisions, with multiple criteria, and gives to formulate the problem as a hierarchical criterion (Taherdoost, 2017).

**Types of Data & Data Collection Procedure**

Two Primary data collection techniques were used to collect the data to achieve the research objective of analysing the professional perceptions on the pre-determined factors that involve the effectiveness of the title registration program. On one hand, a structured questionnaire, developed with a five-point Likert scale (ranging from 1-5 as strongly disagree (1) to strongly agree (5)) questions were used to collect the perceptions from the 60 professionals. The questionnaire has been comprehended with the information of professionals' perceptions on seven pre-determined factors in terms of awareness of

the program and participation in awareness activities (F1), administration (F2), attitudes and perception (F3), social (F4), technological (F5), legal (F6) and access to information (F7) and were treated as the independent variables. The dependent variable was the 'effectiveness of the program' which was also measured using the five-point Likert scale questions. Secondly, tele interviews were conducted with six (06) key professionals as the physical meetings were prohibited during this period with travel bans introduced by the government based on the COVID-19 pandemic. Further, secondary data related to the program was collected mainly from the Ministry of Lands, Department of Land Settlement, Moratuwa and Homagama Divisional Secretariat Divisions, and Bim Saviya Program to explore an overview of the status of the program.

**Reliability of Data**

Cronbach Alpha was used to test the reliability of data (Nunnally, 1978). All independent and dependent variables show the Cronbach Alpha values of more than 0.7. According to the survey data, Cronbach's Alpha of all the variables is exceeding 0.7 (Refer table 01). Therefore, this study fulfilled the reliability requirement of the variables and qualified for further analysis.

| **Factor** | **Cornbrash's Alpha** | **No of Items** |
|---|---|---|
| Awareness of the program and participation | 0.906 | 7 |
| Administration | 0.945 | 10 |
| Attitude and perception | 0.839 | 6 |
| Social | 0.969 | 4 |
| Technological | 0.873 | 7 |
| Legal | 0.928 | 7 |
| Access to information | 0.834 | 7 |
| Effectiveness of the Programme (DV) | 0.875 | 5 |
| | | |

*Table 1: Reliability of the Variables Used in the Study*

*Source: Survey Data, 2020*

**Data Analysis Procedure**

The analysis of data explored the mixed approach. Descriptive statistics, Pareto analysis, and Spearman correlation were adopted as the quantitative analysis methods. The process of examining the strength of the link with available statistical data or determining if a relationship between two variables exists and how strong it may be, is known as correlation analysis (Gujarati & Porter, 2009). As a result of the nature of the variables that are non-normally distributed, the Spearman rank-order correlation analysis was used in this study. The qualitative analysis of the study is based on the Qualitative Analytic Hierarchy Process (AHP) (Taherdoost, 2017). Therefore, in the study, the perceptions of the professionals obtained through tele interviews were analysed under a qualitative approach by using AHP to measure professionals' priorities about the seven factors affecting the effectiveness of the title registration program.

**Hypothesis Development**

Table 2 presents the factors selected and the hypotheses developed

*Table 2: Pre-determined Factors and the Hypothesis*

| **Factors** | **Source of Literature** | **Hypotheses** |
|---|---|---|
| Awareness of the program and participation | Kirubanathan, (2013)<br>Wickramaarachchi et al., (2021) | H1- There is a positive relationship between Awareness of the Programme and Participation in Awareness Activities and the Effectiveness of the Land Title Issuance Program. |
| Administration | Ekemode et al., (2017)<br>Divithure, (2013) | H2- There is a positive relationship between the Administration Factor and the Effectiveness of the Land Title Issuance Program. |
| Attitude and perception | Kirubanathan, (2013) | H3- There is a positive relationship between Attitude and Perception with the Effectiveness of the Land Title Issuance Program. |
| Social | Binswanger et al., 1995; Ekemode et al., 2017) | H4- There is a positive relationship between the Social Factor and the Effectiveness of the Land Title Issuance Program. |

| | | |
|---|---|---|
| Technological | Kuntu-Mensah, 2006; Ekemode et al., 2017) | H5- There is a positive relationship between the Technological Factor and the Effectiveness of the Land Title Issuance Program. |
| Legal | Divithure, (2013) | H6- There is a positive relationship between the Legal Factor and the Effectiveness of the Land Title Issuance Program. |
| Access to information | (Rubasingha 2010) | H7- There is a positive relationship between the Access to Information Factor and the Effectiveness of the Land Title Issuance Program. |

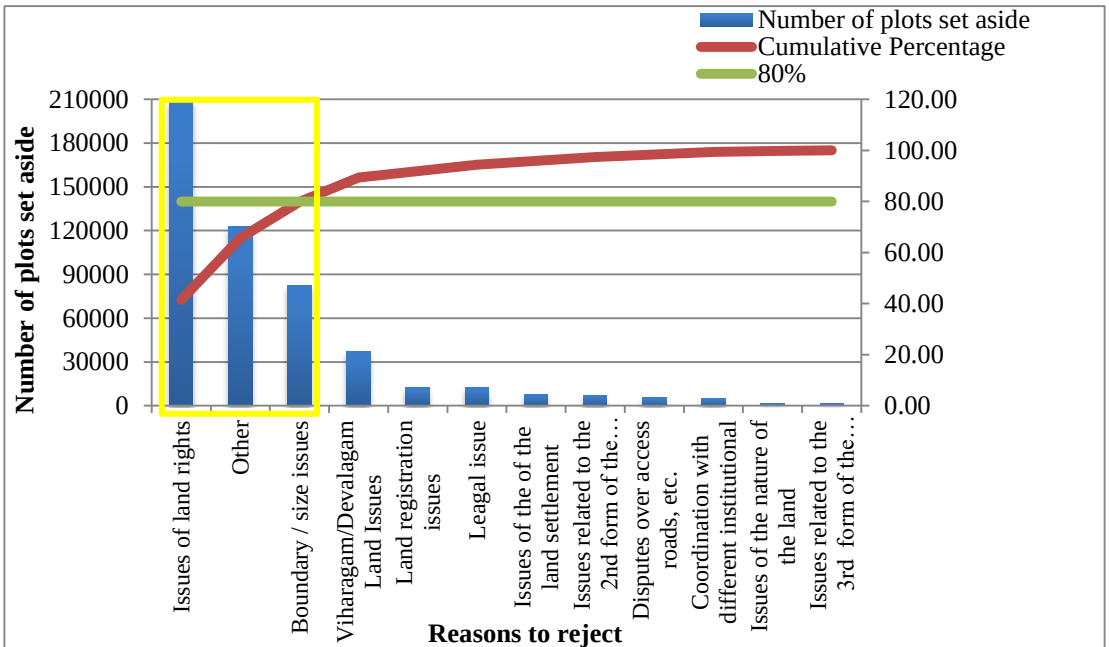
*Source: Compiled by Author based on Literature Review*

## FINDINGS & RESULTS

### Identification of Significant Issues in Land Title Registration Program

According to the information available in the Bim Saviya program, there are many issues that have been identified as reasons to hold the issuing of a certificate for a plot of land even though it has been surveyed. Since the beginning, there is a higher rejection rate of plots without issuing the certificate and only a limited number has granted the final certificate. Among the several issues what factors are mostly contributing to this rejection of surveyed plots has been analysed using Pareto analysis (Figure 1). The Pareto analysis filtered the most significant factors. It has the 80/20 rule and statistically separated the limited number of input factors as having the greatest impact on an outcome, either desirable or undesirable.

**Figure 1:** Pareto Analysis



*Source: Compiled by Author based on Secondary Data from Bim Saviya Program, 2020*

A total of 210 000 plots were considered to identify the issues of the Bim Saviya Program. Amongst the total identified factors, three factors that fall above the 80% cut offline viz. issues of land rights, boundary, or land size issues and others. The category of other issues represents the issues coupled with many issues such as administrative, technical, social, lack of awareness of the program and participation in the actual process, etc. Therefore, these three factors should be considered immediately than other factors that fall below the cut-off level. Besides such factors affecting the issuance of title, it is needed to identify what factors affect the overall effectiveness of the program. Thus, the following analysis is explored.

**Assessment of the Relationship between seven Factors and Effectiveness of Land Title Registration Program (quantitative analysis)**

**Descriptive statistics of the variables and Normality Test with Skewness**

Before moving to quantitative analysis, it was tested the normality distribution of the data. Table 3 presented the result of the Normality test with skewness. A normality test is used in statistics to see whether a data collection is modelled for a normal distribution (Orcan, 2020). As numerical measures, skewness – can be used to test for normality. If skewness is not close to zero, then your data set is not normally distributed.

*Table 3: Descriptive Statistics and Normality Test with Skewness*

| Factor | Mean | Std. Deviation | Median | Minimum | Maximum | Skewness |
|---|---|---|---|---|---|---|
| Awareness of the Program and Participation | 3.1095 | .33515 | 3.0000 | 2.43 | 4.00 | 1.211 |
| Administration | 3.1067 | .36447 | 3.0000 | 2.20 | 4.00 | .436 |
| Attitude and Perception | 3.4750 | .39515 | 3.3333 | 2.83 | 4.17 | .501 |
| Social | 3.3708 | .53380 | 3.0000 | 2.25 | 4.00 | -.025 |
| Technological | 3.4619 | .51297 | 3.5714 | 2.14 | 4.00 | -1.374 |
| Legal | 3.3952 | .43487 | 3.2857 | 2.86 | 4.00 | .397 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Access to Information | 3.3381 | .43216 | 3.1429 | 2.57 | 4.14 | .195 |
| Effectiveness of the Program | 3.2125 | .42142 | 3.0000 | 2.50 | 4.00 | .815 |

*Source: Survey Data, 2020*

Results in table 3 show the mean values of the perceptions for each factor are above 3 and indicates that all responses were on agree or above the agreed level. In addition, as per table 3, the independent variables of Awareness of the Program and Participation, Administration, Attitude and Perception, Legal and Access to Information as well as the dependent variable of the Effectiveness of the Program were positively skewed within the model. Whilst the independent drivers of Social and Technological factors are negatively skewed as per the perspectives of professionals in the study area. However, the data has been reflected as categorical and not normally distributed, skewness values are not close to zero. These outcomes lead to the study of the non-parametric for separate driver analysis. Therefore, further analysis has been done with non-parametric techniques.

**Relationship between the identified criteria and the Effectiveness**

To recognize the relationship between the pre-determined criteria and the effectiveness, the spearman correlation analysis was applied. Correlation shows the strength of a relationship or determines how strong a relationship between dependent and independent variables exists (Gujarati & Porter, 2009). The Sig. value, which is less than 0.05 and deemed statistically significant, is frequently used to illustrate the level of significance. The Correlation coefficient shows the magnitude of the effect at a significant level. A higher Coefficient value indicates that the independent variable has a greater influence on the dependent variable.

*Table 4: Results of Spearman Correlation*

| Correlations | | | |
|---|---|---|---|
| | | | Coefficient and the significance |
| Spearman's rho | Effectiveness of the Program | Correlation Coefficient | 1.000 |
| | | Sig. (2-tailed) | 0.000 |
| | | N | 60 |
| | Awareness of the Program and | Correlation Coefficient | .956 |

| | | | |
|---|---|---|---|
| | Participation Factors | Sig. (2-tailed) | .000 |
| | | N | 60 |
| | Administration Factors | Correlation Coefficient | .921 |
| | | Sig. (2-tailed) | .000 |
| | | N | 60 |
| | Attitude and Perception Factors | Correlation Coefficient | .648 |
| | | Sig. (2-tailed) | .000 |
| | | N | 60 |
| | Social Factors | Correlation Coefficient | .696 |
| | | Sig. (2-tailed) | .000 |
| | | N | 60 |
| | Technological Factors | Correlation Coefficient | .742 |
| | | Sig. (2-tailed) | .000 |
| | | N | 60 |
| | Legal Factors | Correlation Coefficient | .755 |
| | | Sig. (2-tailed) | .000 |
| | | N | 60 |
| | Access to Information Factors | Correlation Coefficient | .570 |
| | | Sig. (2-tailed) | .000 |
| | | N | 60 |

*Source: Survey Data, 2020*

Table 4 presents the results of the correlation. According to the results, all the independent variables are positively correlated with the dependent variable indicating a significant positive relationship in all resulting values. Accordingly, there is a strong positive correlation between the variables of Awareness of the Program and Participation, Administration, Technological aspects, and Legal issues, with the effectiveness of land title issuance program showing the values as 0.956, 0.921, 0.755, and 0.742 respectively. The findings show that these elements have a significant contribution to the

effectiveness of the title registration program. Further, the factors of Attitude and Perception, Social, and Access to information are having a moderate positive correlation with the effectiveness of the land title issuance program. Thus significant (2-tailed) of all variables is less than 0.05. Therefore, the results of the study supported the hypotheses in Table 2, depicted as H1, H2, H3, H4, H5, H6, and H7.

**Qualitative Assessment of Professionals' Perception on Factors Affecting to Effectiveness of Programme**

This research applied the Qualitative Analytic Hierarchy Process (AHP) to analyse the data collected through semi-structured tele-interviews with key six (06) professionals involved in the Bim Saviya program. For this purpose, the same pre-determined factors used in the previous analysis are used as follows; F1- Awareness of the Program and Participation Factors, F2 -Administration Factors, F3- Attitude and Perception Factors, F4- Social Factors, F5- Technological, F6- Legal Factors, F7- Access to Information Factors.

The AHP analytical approach would assist to prioritize the factors that affect the effectiveness of the titling program based on professionals' perspectives. As a result, the Consistency Ratio (CR), which is the most significant component of the AHP technique, was investigated to see if the professionals' subjective assessment on the effectiveness influencing factors were consistent. If the value of the Consistency Ratio is less than or equal to, the discrepancy is acceptable (0.10). The subjective evaluation must be updated if the Consistency Ratio is more than 0.10. As per table 5, the CR value is at the acceptable level.

*Table 5: Summary of AHP Findings*

| | F1 | F2 | F3 | F4 | F5 | F6 | F7 | Weighted sum | Criteria weight (W) | Ratio |
|---|---|---|---|---|---|---|---|---|---|---|
| F1 | 0.52 | 0.61 | 0.25 | 0.27 | 0.34 | 0.5 | 0.38 | 2.87 | 0.41 | 7.00 |
| F2 | 0.17 | 0.2 | 0.14 | 0.19 | 0.21 | 0.3 | 0.3 | 1.51 | 0.22 | 6.86 |
| F3 | 0.06 | 0.03 | 0.03 | 0.01 | 0.01 | 0.02 | 0.01 | 0.17 | 0.02 | 8.50 |
| F4 | 0.06 | 0.4 | 0.09 | 0.04 | 0.01 | 0.02 | 0.01 | 0.63 | 0.09 | 7.00 |
| F5 | 0.07 | 0.4 | 0.14 | 0.11 | 0.07 | 0.03 | 0.13 | 0.95 | 0.14 | 6.78 |
| F6 | 0.07 | 0.4 | 0.2 | 0.11 | 0.34 | 0.1 | 0.03 | 1.25 | 0.18 | 6.94 |
| F7 | 0.06 | 0.03 | 0.14 | 0.27 | 0.01 | 0.02 | 0.04 | 0.57 | 0.08 | 7.12 |
| λ max | | | | | | | | | | 7.17 |
| Consistency index (CI) | | | | | | | | | | 0.03 |

| | |
|---|---|
| Consistency Ratio | 0.02 |

*Source: Survey Data, 2020*

Based on the acceptable CR, the Criteria Weights (CW) determined the prioritized highly significant factors affecting the effectiveness of the program in the research region. As a result, the most addressed factors for the above-mentioned situation were, "awareness of the program and participation" and "administration factor," which have CW values of 0.41 and 0.22, respectively. According to professionals, there are insufficient public and professional awareness activities, there are insufficient meetings to develop the discussions, knowledgeable officers are not attending meetings, and the land titling process is very complicated, and complex is some of the issues related to program awareness and participation factor that have highlighted as having a high impact on effectiveness in the selected regions. Consequently, the administration factor has a high impact on the effectiveness because there are insufficient qualified human resources and required funds for implementation, it takes longer periods to get approvals from relevant institutions, there is less coordination and information sharing, and there are some corrupt practices in the title issuance process. Furthermore, the legal and technological factors are highly impacted for the effectiveness of the program with the CW values of 0.18 and 0. 14. However, access to information, social factor, and attitude and perception have a low level of impact on the land title registration program effectiveness with less CW values.

As per the results, the qualitative findings of the study supported the quantitative findings, which demonstrate that the major influential factors of effectiveness of Bim Saviya (Land title registration program) are respectively awareness of the program and participation for activities, administration, legal and technological factors. In comparison to the findings of the end-user perspectives on the successfulness of the program by Wickramaarachchi et al. (2021), awareness of the program is a key determinant in the end-user perspective too. Hence, both end-users and professionals have more positive views regarding the continuous awareness initiatives as the pillars of the program's success. The findings are consistent with Rubasinghe (2010) who found that technological and legal difficulties have a significant impact on the efficacy of land title registration.

## CONCLUSION & RECOMMENDATION

Sri Lanka's land registration system is currently coupled with two main systems and now is being transferred to the title registration system across the country. Despite positive benefits, the land title registration system has been criticized in the context of its slow process and the lesser outcomes than expected. Therefore, the study purposes to examine the elements that affect the effectiveness of Sri Lanka's title registration system considering the perspective of professionals. The findings from the quantitative analysis, the most significant factors were awareness and participation in the awareness

program, administration factors, legal factors, and technological factors, all of which are very influential factors on the effectiveness of the Bim Saviya Program. Subsequently, these findings were justified based on the opinions of experts evaluated through the qualitative AHP analysis. In keeping with both qualitative and quantitative approaches, the most significant factors were Awareness of the Program and Participation, Administration, Legal and Technological. It reflects that the factor of Awareness of the Program and Participation, Administration, Legal and Technological are highly influential for the effectiveness of the Bim Saviya Program. This study endeavoured to ascertain areas that the present land title issuance program can improve its effective and efficient implementation. It is crucial to pay immediate attention to these problems and find remedies because the deed registration system is already paralyzed. As per the result of the study, it is suggested to introduce more awareness programs among both public and professionals not only relying on one or two physical meetings but using media with promotional campaigns and booklets and leaflets containing encouraging statements. Further, to restore a well-established coordination trajectory among stakeholder institutions implying the actions implementing "under one roof "concept can be introduced by thorough policies. Developing policies to inspire the use of modern technologies combined with digital sources to get the fullest cooperation from the community during the title registration process is another strategy to minimize the unrest of technological issues. Allocating adequate funds and resources to train the human resources may add value to reduce the technological issues. Policies to redistribute powers among the responsible authorities are another recommendation to facilitate the smooth functioning of the program. However, these suggestions are focused on the status of the Bim Saviya program. Henceforth, further research is required to analyse the feasibility of these proposals and look for more options that would work out to enhance for a better program that is effectively running in the country.

**Acknowledgment**

*The authors would like to acknowledge the Centre for Real Estate Studies (CRES), Department of Estate Management and Valuation, University of Sri Jayewardenepura*.

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