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# Impact of Nagari Financial Management on the Performance of Sustainable Development in West Sumatra Province

**Hendri Satria**

*Environment and Development Studies Faculty of Economic  
Universitas Negeri Padang, Indonesia*  
Email: [hendrisatria.unp16@gmail.com](mailto:hendrisatria.unp16@gmail.com)

**Syamsul Amar**

*Environment and Development Studies Faculty of Economic  
Universitas Negeri Padang, Indonesia*  
Email: [syamsul\\_amar2@yahoo.co.id](mailto:syamsul_amar2@yahoo.co.id)

**Yunia Wardi**

*Environment and Development Studies Faculty of Economic  
Universitas Negeri Padang, Indonesia*  
Email: [yuniawardi@gmail.com](mailto:yuniawardi@gmail.com)

## Abstract

**Key words:**  
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West Sumatra.

*This research attempts to examine the impact of Nagari financial management on the province of West Sumatra's sustainable development performance. Simultaneously, the originality of this study resides in the discovery of a model for measuring sustainable Nagari development performance that focuses on the effect of channeling funds to villages originating from a variety of sources, including the Regency/Provincial APBD and APBN, as well as Nagari's original income and other sources that have never been explored before. Discovered research on this topic. Quantitative approaches based on Structural Equation Models (SEM) and Partial Least Square (PLS) applications are also fresh to this study. In addition, the unit of analysis is the Nagari, and the research area is a previously unstudied region, namely West Sumatra Province. The sample for this study consists of 182 villages from the province of West Sumatra, which were selected using a stratified random selection method. There were 364 responses from each village, consisting of the Nagari Wali and Nagari Secretary. This study was done for three months, from January to March 2021. The study instrument consists of a closed questionnaire with a Likert scale ranging from 1 to 5. The analytical tool employed is Structural Equation Modeling-Partial Least Square (SEM-PLS), and hypothesis testing is performed using the bootstrap resampling approach (bootstrapping), which permits the use of freely dispersed data and does not assume a normal distribution. The findings demonstrated that Nagari's financial management substantially impacted the performance of sustainable village development.*

## Introduction

Numerous researchers have shifted their focus to sustainable rural development. Thus, the researchers discuss various approaches that can be utilized to implement the sustainable development model and public-private partnerships in financing sustainable development. Rarely has research been undertaken on the topic of managing finances for sustainable rural development, according to previous research. Thus, the research's novelty is exploring a new model for measuring performance in sustainable rural development that considers the impact of delivering either central or local funding to the governments of rural regions (Rogers et al., 2012). Finance management is the sequential method of investing current financial resources to attain enormous corporate success and return on investment. Numerous researchers have now linked it to achieving sustainable development. Rural regions are, therefore, well behind in promoting sustainable development through prudent financial management. A developing rural context such as West Sumatra can benefit from managing its finances in a manner that has a positive impact on the performance of sustainable development because SD practices can help Nagara adapt to the challenges of climate change, thereby protecting vital natural resources for current and future generations (Pandey, 1979). Regional improvement on a local scale is

primarily linked with developing nations since, throughout the past few decades, the phenomena have been viewed as dynamic in terms of the transition from centralized to decentralized planning. The traditionally top-down procedural structuring/designing of national development has shifted towards a lesser value. Therefore, this quick transformation necessitated careful planning of the rural government's superstructures and infrastructures in Nagari. However, it is significant that neither Nagari's readiness nor capacity to adopt and implement government-formulated policies has been realized in the hamlet ([Karina et al., 2021](#)).

The government has enacted some policies recognizing the sources of income in Nagari, which are assumed to contribute to "revenues and expenditures" budgets, but this has not prevented the emergence of several problems. This also includes the low quality of human resources for financial management, the escalation of planning procedures that are not yet democratic, interest conflicts between citizens and the Nagari elite, and the undeveloped institutional system of the Nagari economy. The concept of financial management is an inherent aspect of any nation's or company's strategy for the accomplishment of profitability, as well as a fundamental issue. Thus, governments deploy admirable abilities and efforts to minimize expenditures while aiming for enormous rewards ([Karina et al., 2021](#)). There is a shortage of research to support the notion of financial management as an integral concept that promotes sustainable development in rural regions, even though numerous studies have concentrated on explaining how proper financial management boosts the profit margins of any organization. However, there has been a dearth of research on Nagari in its relevant context. Consequently, this study aims to determine the effect of financial management on the performance of sustainable development in West Sumatra Nagari. (Through the indicators of Rural finance management (RFM) and the indicators of sustainable rural development performance (SRDP), as defined by a survey of the relevant literature.

The significance of the research rests in the data that financial management has placed a particular emphasis on its effect on sustainability because firms are increasingly adopting sustainable business practices. The sustainability of Nagari has been a focal point for the past decade. Given that the industrial revolution of the 20th century enabled humans to produce huge quantities of goods, it consequently has a more significant detrimental influence on ecological ([Haryati et al., 2021](#)). Heavy manufacturing results in air pollution, high levels of carbon dioxide, and water contamination. All these cause harm to ecology. Concerning this urgent matter, institutions, organizations, and governments worldwide have begun to highlight sustainable problems as significant issues to address. Thus, significant consideration and emphasis have been placed on the role of financial management in sustainable projects ([Pamungkas et al., 2019](#)). The study's theoretical benefits, such as a heightened knowledge of sustainable village development approaches, give it tremendous

significance. This component can therefore serve as a resource for overcoming obstacles and researching solutions to Nagari's development concerns. In addition, the study's practical value is ensured by its contribution to the formulation of decisions in the development planning of Nagari, the regional development plan, and the procedural policies and programs in West Sumatra.

### Literature Review

This study's literature review has been separated into two components. These studies have frequently highlighted rural financial management and sustainable development indicators. Following is a description of observable indications from the literature. According to the research conducted by [Hunt et al. \(2011\)](#), the quality of financial planning is of greater significance because it leads to prudent resource allocation. The quality of financial planning can be determined by how the financial planner strives to discover what is authentic and meaningful to spend their client's money. The execution of a financial organization is directly related to the rational planning of finance allocation. This financial implementation is also of equal importance because, according to studies, planning is pointless if it is not sound and sufficient. According to the study by [Aperghis et al. \(2004\)](#), the quality of finance, such as financial administration, attempts to ensure the correct functioning of the economy through public expenditures, public debts, and taxation. In addition, it contains the policy instruments necessary to guarantee strong economic growth and full employment. [Reed et al. \(1996\)](#) found that the four components of financial administration—planning, organizing, controlling, and directing—are of similar importance. [Beyer et al. \(2010\)](#) colleagues created the notion of financial reporting quality. He emphasized that the related idea can be viewed as a continuum extending from the largest (which includes meaningful, simple, and objective information) to the smallest (it inculcates information that is not merely biased or insufficient but probably pure fabrication). According to [Premchand \(1999\)](#)'s research, financial responsibility is the duty of financial integrity, which includes compliance and disclosure with the specified rules and regulations.

Numerous scholars have focused on alleviating rural poverty since its pervasive negative impacts are detrimental to human life. It can therefore be viewed as the degree to which an individual or group can increase their monetary expenditures to a level above and beyond the poverty line while also gaining access to basic facilities of life such as information, healthcare, education, economic opportunities, and the protection of "land tenure" ([Barder, 2009](#)). It also encompasses all other associated deprivations. According to the study by [Kruk et al. \(2018\)](#), health quality is the extent to which health services for various individuals and populations increase the chance of desired health outcomes and are consistent with the most current professional knowledge. Most rural regions implement the policies of establishing specific goals, forming a balanced team, including human element inputs, and communicating

desired goals and progress to address critical challenges. [Laurie et al. \(2016\)](#) have also researched the quality of schooling.

The quality of education is determined by the extent of its dominance and availability in rural areas. According to the 2019 World Health Organization studies on water inequality, one in three people worldwide lacks access to clean and pure water, which has also been identified as an essential indicator of sustainable rural development ([Cetrulo et al., 2020](#)). The population lacks access to clean water and hand-washing facilities. Sanitation has become a concern in these places. Appropriate sanitation is also connected to the sustainable development of rural communities. Access to facilities for the safe disposal of human waste (urine and feces), as well as the capacity to maintain hygiene through the provision of services such as garbage collection, hazardous waste management, and wastewater treatment and disposal. The transmission of diarrhea and other diseases, such as cholera, typhoid, dysentery, and infection, is proportional to the quality of sanitation facilities ([Adams et al., 2018](#)). This is most frequently noticed in rural areas because metropolitan areas are the most adept at dealing with sustainable development. According to [Bhattacharyya et al. \(2012\)](#)'s research, access to modern electricity is essential to supply clean water, sanitation, and healthcare facilities. In addition, these are required for dependable and efficient lighting, cooking, heating, mechanical power, telecommunications, and transportation facilities.

It appears that rural areas lack the infrastructure that ensures the prosperity of any civilized civilization. In their study, [Prus et al. \(2021\)](#) defined quality infrastructure as a system that contributes to government policy in trade competitiveness, industrial development, efficient use of human and natural resources, health, food safety, climate change, and the environment. Regions that lack access to quality infrastructure development are far behind in progress and achieving sustainable development. Suppose the settlement is satisfactory somewhere, the likelihood of SDPs increases. According to the research conducted by [Risti et al. \(2019\)](#), it aids in recognizing the social and economic growth of a setting and can provide light on its integral activities. Large settlements may have multiple functions, which is essential for determining the success and expansion of settlement significance.

Sustainable development is also related to environmental concerns, as demonstrated by the study in which the author explains that any environmental change or distortion is viewed as undesirable or harmful ([Sobczyk, 2014](#)). As these are the negative effects of any human activity exerted on the environment, environmental concerns ensure sustainable development performance. This includes biological and physical environmental characteristics. The government, administration, or regulatory agencies have incorporated and regarded it as an essential indicator for monitoring sustainable development success. Today, air pollution is notably the most prevalent environmental concern, and its

increase is hurting the environment and air, etc. (Haider et al., 2018). Women's participation in affairs is essential for gender equality and sustainable development, typically restricted to men due to gender disparities. Reducing gender discrimination and ensuring women's participation/involvement ensures the success of any region, such as in public decision-making, and is a source of ensuring women's accountability (Deji, 2011).

## Methods

### Method and Data Collection

This study was designed using a quantitative deductive methodology. This strategy was chosen because it provides an objective financial management study of West Sumatra's sustainable growth. In addition, the research attempts to examine the impact of Nagari's financial management on sustainability in West Sumatra. When the cause-and-effect relationship must be investigated objectively, the most appropriate strategy is to employ quantitative research methods. The data was acquired using standardized, closed-ended questionnaires distributed personally to the staff of Nagari. All participants were assured that their information would be kept private following confidentiality requirements and moral obligations. Participants signed consent was also sought before the start of the trial. Age, gender, and educational background information were also requested from respondents. To safeguard the respondent's anonymity, the researcher was not required to provide any information that could lead to the respondent's identification.

### Sample size

Agam Regency, with a population of 82 Nagari, is picked for the sample of districts that reflect highland terrain, represent Luhak areas, and represent districts with "advanced" IDM status. In contrast, the selection of districts that exemplify coastal geography is representative of international regions. Padang Pariaman Regency selected districts with IDM value status of "developing" for a population of 103 Nagari. Therefore, the total population of the Nagari is 182 villages. According to information from the Ministry of Village & PDT, in 2020, there will be four stages in these two regions: five autonomous villages, 79 advanced villages, 96 villages in development, and five undeveloped villages.

### Data Collection and Analysis

The study's objectives always determine this study's target population. As the purpose of the study is to examine the effect of Nagari's financial management on the performance of sustainable development in West Sumatra, the employees of Nagari were chosen as the target audience. Application of the convergent validity, discriminant validity, composite reliability, and Cronbach's alpha tests. To assure the confidence and

alignment of values with predefined threshold ranges. Utilizing SEM (Structural Equation Models), research respondents' primary data were analyzed. The application of SEM was motivated by the need to determine the correlations between latent variables. SEM was employed for its advantages of directly identifying measurement error and estimating unseen (latent) factors using observed variables. SEM can refine results through model testing, where a data-fitting framework can be implemented and evaluated. In the meantime, the analysis steps were conducted utilizing Structural Equation Models (SEM) using the Partial Least Square (PLS) program. This research was successful because PLS permits the evaluation of complex cause-and-effect interactions in route models with latent components. Through a review of the relevant literature, four indicators relating to rural financial management were discovered. After analyzing the literature on sustainable rural development performance, ten indicators were developed. As indicated by the results, the impact of these two variables, such as RFM, on SRDP and their corresponding indicators was evaluated.

### **Ethics-Related Factors**

The research was conducted following ethical standards and considerations. Every research involving human subjects necessitates examining and using ethical principles to safeguard the respondents' dignity, rights, and well-being. Therefore, the following approach was utilized to guarantee that no respondent was hurt, manipulated, or coerced:

- The researcher aimed to examine the impact of financial management on the performance of sustainable development in Nagari. Hence the above-mentioned precise target population was contacted. The researcher did not engage in any form of discrimination based on religion, caste, or gender.
- All the data included in the study are the result of the researcher's efforts and the previous researcher's work that has been adequately referenced throughout the research.
- No information regarding the identity of respondents was obtained, as anonymization properly secured the respondents' identities.

### **Results**

Nagari finance management greatly influences the effectiveness of sustainable Nagari development in West Sumatra Province. This indicates that the performance of sustainable Nagari development in West Sumatra Province is correlated with the quality of Nagari financial management. From this study, it was determined that the excellent performance of sustainable Nagari development is evidenced by a decrease in the poverty rate from year to year, good health quality, good education quality, access to adequate clean water, village community access to the availability of proper sanitation, availability of sufficient energy that the community can

access, good infrastructure quality, and the availability of adequate housing for the population.

## Nagari Financial Management Variables

### *Financial Planning Quality Indicators (RFM1)*

Based on the results of the total score of answers from respondents in answering 8 (eight) statements that describe the condition of the quality of financial planning in the sample villages, it can be observed in [table 01](#) below:

**Table 01.** Distribution of Nagari Characteristics Based on Quality of Financial Planning

Category	Score Interval	Frequency	%
Well	30 - 40	182	100
Currently	19 - 29	0	0
Not enough	8 - 18	0	0
Total		182	100

**Source:** Research data processing, 2021

Based on the data processing of the research results and the answers from the respondents, it can be observed that the quality of financial planning in the sample villages is categorized as either 182 villages or 100%.

### **Quality Indicators of Financial Organizing Implementation (RFM2)**

The characteristics of the sample villages based on the quality of implementing financial organization can be observed from the total number of answers scores from respondents to 15 statements can be observed in [Table 02](#) below:

**Table 02.** Distribution of Nagari Characteristics Based on Quality of Financial Organizing

Category	Score Interval	Frequency	%
Well	57 - 75	177	97.25
Currently	36 - 56	5	2.75
Not enough	15 - 35	0	0.00
Total		182	100

**Source:** Research data processing, 2021

From the [Table](#) above, most sample villages in Nagari have excellent financial organization implementation, 97.25 percent or 177 villages. In comparison, 2.75 percent of five villages have a medium-quality financial organization implementation. In contrast, no community has a quality financial implementation organization—unfavourable classification.



### Financial Administration Quality Indicator (RFM3)

Table 03 displays the characteristics of the sample villages depending on the quality of their financial administration, as determined by the total score of respondents' responses to 14 statements.

**Table 03.** Distribution of Nagari Characteristics Based on Financial Administration Quality

Category	Score Interval	Frequency	%
Well	52 - 70	180	98.90
Currently	33 - 51	1	0.55
Not enough	14 - 32	1	0.55
Total		182	100

**Source:** Research data processing, 2021

Regarding financial administration quality indicators, 180 villages, or 98.90%, have an excellent value, whereas 1 Nagari has a moderate value and 1 Nagari falls into the low financial administration quality category or 0.55%.

### Financial Reporting Quality Indicators (RFM4)

Table 04 displays the characteristics of the sample villages depending on the quality of their financial reporting, as determined by the total score of respondents' responses to the three assertions.

**Table 04.** Distribution of Nagari Characteristics Based on Quality of Financial Reporting

Category	Score Interval	Frequency	%
Well	13 - 15	159	87.36
Currently	8 - 12	21	11.54
Not enough	3 - 7	2	1.10
Total		182	100

**Source:** Research data processing, 2021

159 villages, or 87.35 percent, have good financial reporting quality, 21 villages, or 21 villages, have moderate financial reporting quality, and 2 villages, or 1.1 percent, have low financial reporting quality.

### Financial Accountability Quality Indicator (RFM5)

Consider examining the characteristics of the sample villages based on the quality of their financial accountability, followed by the total score of respondents' responses to six items. Consequently, it may be noted in Table 05:

**Table 05.** Distribution of Nagari Characteristics Based on Quality of Financial Accountability

Category	Score Interval	Frequency	%
Well	24 - 30	175	96.15
Currently	15 - 23	6	3.30
Not enough	6 - 14	1	0.55
Total		182	100

**Source:** Research data processing, 2021

There are 175 sample villages or 96.15%, with the quality of financial accountability with good criteria, 6 sample villages with poor criteria, and 1 Nagari, or 0.55%, with poor criteria.

## Indicators of Sustainable Nagari Development Performance

### Poverty Reduction Indicator (SRDP1)

Based on data collection from respondents in the Nagari, it can be observed that the characteristics of the Nagari based on poverty reduction in the Nagari are as follows:

**Table 06.** Distribution of Nagari Characteristics Based on Poverty Reduction

Category	Score Interval	Frequency	%
Well	19 - 25	125	68.68
Currently	12 - 18	56	30.77
Not enough	5 - 11	1	0.55
Total		182	100

**Source:** Research data processing, 2021

The characteristics of Nagari based on poverty reduction indicators are only 68.68% (or 125 villages) in the good category, 30.77% (or 56 villages) in the medium category, and 0.55% (or 1 village) in the poor category, as shown in the [Table](#) above.

### Health Quality Indicators (SRDP2)

For an overview of the characteristics of the Nagari based on the quality of health in the Nagari, it can be observed as described in [table 07](#) below:

**Table 07.** Distribution of Nagari Characteristics Based on Health Quality

Category	Score Interval	Frequency	%
Well	19 - 25	48	26.37
Currently	12 - 18	133	73.08
Not enough	5 - 11	1	0.55
Total		182	100

**Source:** Research data processing, 2021

In the Table above, the bulk of Nagari's level of health quality is still in the moderate category, with 73.08% or 133 villages having quality public health in the moderate category and only 26.37% or 48 villages having quality health in the excellent category. There are 0.55 percent or 1 Nagari with bad health.

### Education Quality Indicators (SRDP3)

The description of the characteristics of the Nagari based on the quality of education can be observed in the [Table](#) below:

**Table 08.** Distribution of Nagari Characteristics Based on Education Quality

Category	Score Interval	Frequency	%
Well	19 - 25	131	71.98
Currently	12 - 18	51	28.02
Not enough	5 - 11	0	0.00
Total		182	100

**Source:** Research data processing, 2021

As seen in the Table above, the description of the distribution of Nagari characteristics based on the quality of education as determined by the total number of responses from respondents indicates that 131 Nagari, or 71.98 percent, fall into the category of having a high-quality education. 51 Nagari, or 28.02 percent, have medium-quality education, while no villages with low-quality education exist. This indicates that the quality of education in Nagari is generally high.

### Clean Water Access Indicator (SRDP4)

The distribution of Nagari characteristics based on the scope and availability of access to clean water can be observed in [table 09](#) below:

**Table 09.** Distribution of Nagari Characteristics Based on Access to Clean Water

Category	Score Interval	Frequency	%
Well	19 - 25	146	80.22
Currently	12 - 18	36	19.78
Not enough	5 - 11	0	0.00
Total		182	100

**Source:** Research data processing, 2021

The preceding [Table](#) depicts the distribution of Nagari based on their access to potable water. Based on the responses of all respondents, it is known that access to clean water in Nagari is generally good; nonetheless, it does not meet the global criterion of 100 percent availability. Currently, 80.22 percent, or 146 villages in the Nagari, have access to clean water, 19.78 percent, or 36 villages, have access to clean water in the medium category, and there is no access to clean water in the Nagari in the poor category.

### Indicators of Access to Adequate Sanitation (SRDP5)

If we look at the distribution of Nagari distribution based on access to proper sanitation, it can be described as follows:

**Table 10.** Distribution of Nagari Characteristics Based on Access to Adequate Sanitation

Category	Score Interval	Frequency	%
Well	19 - 25	125	68.68
Currently	12 - 18	55	30.22
Not enough	5 - 11	2	1.10
Total		182	100

**Source:** Research data processing, 2021

Distribution of Nagari features if the focus is on access to proper sanitation reveals that 68.68% of Nagari, or 125 villages, have coverage of adequate sanitation access in the good category, while access to proper sanitation in Nagari is in the medium category with 55 villages, or 30.22%. Two villages, or 1.10 percent, still lack access to decent sanitation.

### Energy Access Indicator (SRDP6)

Furthermore, the [Table](#) below describes the distribution of Nagari characteristics based on access to energy as follows:

**Table 11.** Distribution of Nagari Characteristics Based on Energy Access

Category	Score Interval	Frequency	%
Well	19 - 25	152	83.52
Currently	12 - 18	30	16.48
Not enough	5 - 11	0	0.00
Total		182	100

**Source:** Research data processing, 2021

The distribution of Nagari traits based on access to energy is predominantly positive, as shown in the [Table](#) above. Specifically, 152 Nagari, or 83.52 percent, have access to energy in the excellent category, 16.48 percent, or 30 villages, have access to energy in the medium category, and no Nagari has access to energy in the low category.

### Infrastructure Quality Indicator (SRDP7)

The quality of its current infrastructure can gauge the success of Nagari's development; in this study, [Table 12](#) provides an overview of the distribution of Nagari's features depending on infrastructure quality.

**Table 12.** Distribution of Nagari Characteristics Based on Infrastructure Quality

Category	Score Interval	Frequency	%
Well	19 - 25	141	77.47
Currently	12 - 18	41	22.53
Not enough	5 - 11	0	0.00
Total		182	100

**Source:** Research data processing, 2021

The distribution of Nagari characteristics based on the quality of infrastructure found in the Nagari can be observed through the total score of the respondent's answers to the statement submitted, where there are 141 villages with good infrastructure quality or 77.47%, 22.53% with infrastructure quality in their villages with categories medium, and no villages with poor infrastructure quality were discovered in this study.

### Indicator of Availability of Adequate Settlement (SRDP8)

Based on the overall score of respondents' responses to the questions on the study instrument, it can be determined that the distribution of the Nagari's features is based on the presence of decent settlements, namely:

**Table 13.** Distribution of Nagari Characteristics Based on Availability of Adequate Housing

Category	Score Interval	Frequency	%
Well	19 - 25	119	65.38
Currently	12 - 18	63	34.62
Not enough	5 - 11	0	0.00
Total		182	100

**Source:** Research data processing, 2021

The distribution of Nagari features based on the presence of decent settlements in the Nagari, as shown in the [Table](#) above, is 65.38 percent, or 119 Nagari. The availability of decent settlements is rated as good, yet, 34.62 percent, or 63 villages, still fall into the mediocre category. Based on the total score of the respondents' responses, the availability of suitable housing was not identified in the poor category of this study.

### Environmental Concern Indicator (SRDP9)

The distribution of Nagari characteristics based on environmental awareness indicators can be observed in [Table 14](#) below:

**Table 14.** Distribution of Nagari Characteristics Based on Concern for the environment

Category	Score Interval	Frequency	%
Well	27 - 35	3	1.65
Currently	17 - 26	133	73.08
Not enough	7 - 16	46	25.27
Total		182	100

**Source:** Research data processing, 2021

According to the above [Table](#), the distribution of Nagari characteristics based on concern for the environment, based on respondents' responses, falls into the medium category for 73.08% or 133 Nagari. In comparison, only 1.65% or 3 Nagari are classified as having good concern for the environment. In addition, 25.27 percent or 46 Nagari fall into the group of having low regard for the environment.

### Women Involvement Indicator (SRDP10)

The description of Nagari characteristics based on indicators of women's involvement can be observed in the [Table](#) below:

**Table 15.** Distribution of Nagari Characteristics Based on Women's Engagement

Category	Score Interval	Frequency	%
Well	19 - 25	171	93.96
Currently	12 - 18	11	6.04
Not enough	5 - 11	0	0.00
Total		182	100

**Source:** Research data processing, 2021

In the [Table](#) above, the distribution of Nagari characteristics is based on the involvement of women in the development of the majority in the good category, with 93.96 percent or 171 Nagari whose women's involvement in the development of the Nagari being in a suitable category, compared to 6.04 percent or 11 villages. Where women's participation in Nagari development falls into the moderate category, there is no Nagari where women's participation in Nagari development falls into the poor category.

### Evaluation of Measurement (Outer) Model

An outer model analysis evaluated the link between indicators and latent variables. Cronbach's Alpha, Rho A, Composite Reliability, and Average Variance Extracted (AVE) values from each indicator were used to evaluate the measurement model, as given in [table 16](#) below.

**Table 16.** Cronbach's Alpha, Rho\_A, Composite Reliability, Average Variance Extracted (AVE) values

Variable	Cronbach's Alpha	Rho_A	Composite Reliability	Average Variance Extracted (AVE)
RFM	0,961	0,992	0,971	0,872
SRDP	0,889	0,899	0,908	0,500

**Source:** Research data processing, 2021

Figure 1 depicts the measurement model for testing validity and reliability, model determination coefficient, and path coefficient for the equation model employed and examined in this work.

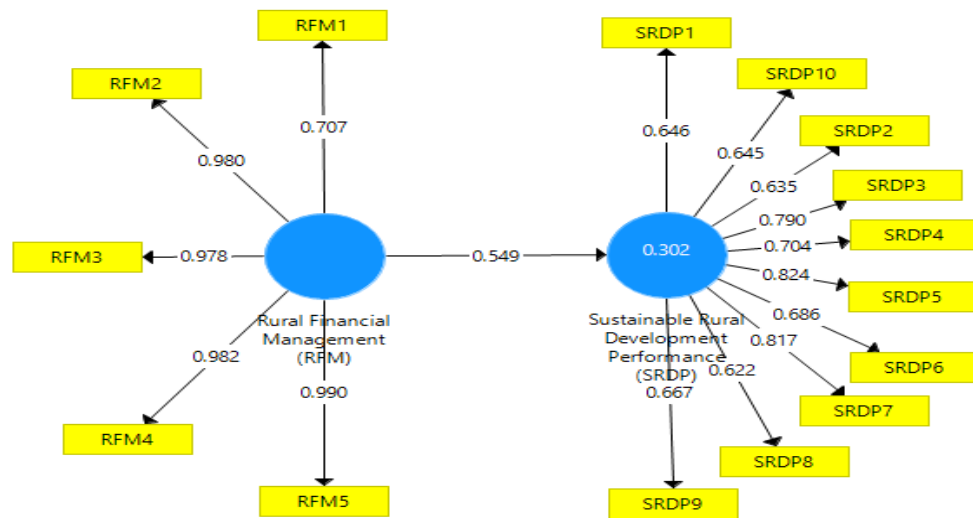


Figure 1. PLS Algorithm Analysis Results Display

### Convergent Validity

According to (Hair et al., 2011), for an initial examination of the loading factor matrix, which is approximately 0.3, it can be considered to have met the minimum level; for a loading factor with a value of approximately 0.4, it can be better, and for a loading factor greater than 0.5 can generally be considered significant; therefore, a loading factor of 0.5 was used in this study.

Table 17. Value of Outer Loadings Indicator against Construct

	RFM	SRDP
RFM1	0.707	
RFM2	0.980	
RFM3	0.978	
RFM4	0.982	
RFM5	0.990	
SRDP1		0.646
SRDP2		0.635
SRDP3		0.790
SRDP4		0.704
SRDP5		0.824
SRDP6		0.686
SRDP7		0.817
SRDP8		0.622
SRDP9		0.667
SRDP10		0.645

Source: Research data processing, 2021

The convergent validity of the measurement model is evaluated based on the loading factor value of the reflecting indicators used to measure the construct. As in this study, the concurrent validity test in PLS with reflecting indicators is evaluated based on the loading factor of the indicators that measure the construct. A loading factor value of 0.3 is considered to have met the minimum level, a loading factor value of 0.4 is considered to be better, and a loading factor value of > 0.5 is regarded as practically significant, according to the rule of thumb that is typically used to conduct an initial check of the factor matrix (Abdillah et al., 2015). In table 17 above, the description of the loading factor value for each indicator's construction is provided.

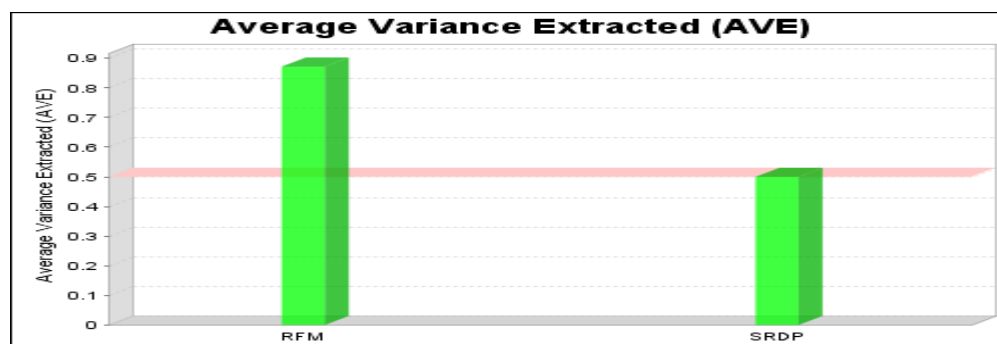
Based on the Table above, six indicators are considered practically significant because with a loading factor value > 0.5, and 9 indicators have a loading factor value > 0.7. According to (Abdillah et al., 2015), if the loading score is < 0.5, the indicator can be removed from the construct because it is not loaded into the construct that represents it. On the other hand, if the loading score is between 0.5 - 0.7, then the indicator should not be deleted if the Average Variance Extracted (AVE) and Communality score of the indicator is > 0.5. For an overview of the Average Variance Extracted (AVE) value of each variable, see table 18 below:

**Table 18.** The results of the Average Variance Extracted in the validity test

	<i>Average Variance Extracted (AVE)</i>
RFM	0.872
SRDP	0.501

**Source:** Primary Research data processing, 2021

The RFM1 measured the RFM construct – RFM 5 indicator with an AVE value above 0.5, which is 0.872, while the SRDP construct was measured by SRDP1 – SRDP 10 with an AVE value above 0.5, which is 0.501. For more details, see Figure 2 on the Average Variance Extracted (AVE) value diagram below:



**Figure 2.** Average Variance Extracted (AVE) Value Chart

### Discriminant Validity

The model has enough discriminant validity if the AVE root for each concept is more significant than its correlation with other constructs in



the model. To demonstrate whether the indicator in a construct has a more significant loading factor in the construct it creates than in other constructs, as seen in the [Table](#) below:

**Table 19.** Cross Loading value results

	RFM	SRDP
RFM1	0.707	0.273
RFM2	0.980	0.545
RFM3	0.978	0.560
RFM4	0.982	0.557
RFM5	0.990	0.553
SRDP1	0.497	0.646
SRDP2	0.316	0.635
SRDP3	0.439	0.790
SRDP4	0.402	0.704
SRDP5	0.433	0.824
SRDP6	0.262	0.686
SRDP7	0.438	0.817
SRDP8	0.278	0.622
SRDP9	0.421	0.667
SRDP10	0.205	0.645

**Source:** Primary Research data processing, 2021

It can be seen in the [Table](#) above that each indicator has a more significant cross-loading value of the indicator correlation value to its construction than to other constructs. The measurement model's validity can be determined based on the examination of the relationship model. To determine the next Discriminant Validity, consider the Fornell-Larcker criterion's value. Each variable's Fornell-Larcker criterion value must be greater than its correlation with the other variables. This phase involves comparing the Fornell-Larcker criterion value of each variable. [Table 20](#) provides the test results for the Fornell-Larcker criterion.

**Table 20.** Fornell-larcker criterion

	RFM	SRDP
RFM	0.934	
SRDP	0.549	0.707

**Source:** Primary Research data processing, 2021

The Fornell-Larcker criterion for the institutional variable has a value of 0.759, the Sustainable Development Performance variable has a value of 0.716, the economic development variable has a value of 0.736, and the Nagari financial management variable has a value of 0.752. Suppose a variable is compared to other variables. In this situation, the Fornell-Larcker criterion value is more significant, indicating that the discriminant validity conditions have been met and the test can be considered valid.

### Composite Reliability and Cronbach's Alpha

To evaluate the dependability of a variable's indicators at the Composite Reliability stage. If the Composite Reliability of an indicator is more than 0.60, it is deemed dependable. In addition to the Composite Reliability score, Cronbach's Alpha is also used to measure the indicator's reliability. If a variable's Cronbach's Alpha value is more significant than 0.7, it is claimed that the variable is dependable. The Composite Reliability and Cronbach's Alpha values for each variable are detailed in [Table 21](#).

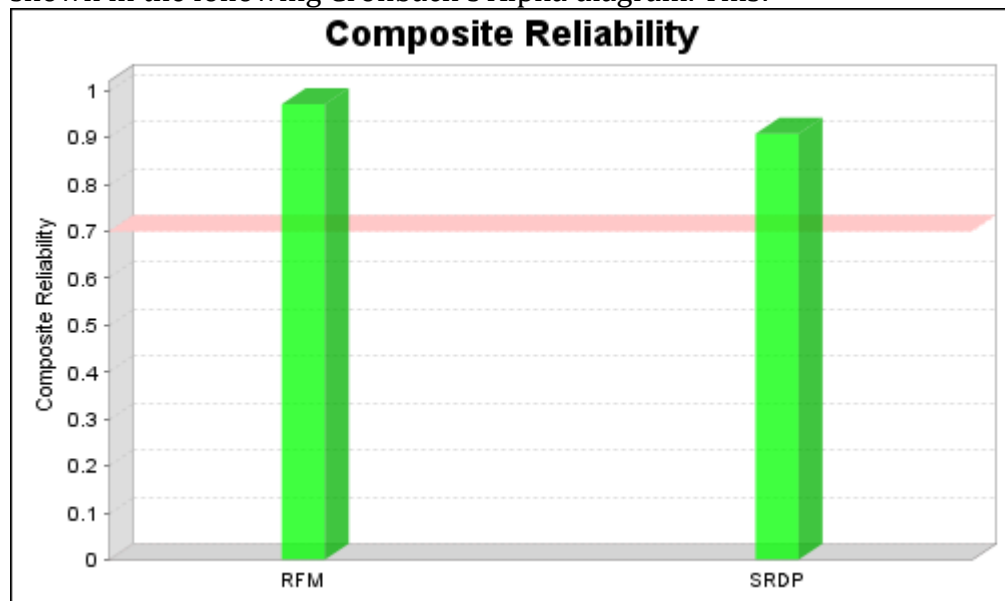
**Table 21.** Composite Reliability and Cronbach's Alpha

Construct	Composite Reliability	Cronbach's Alpha
RFM	0.961	0.971
SRDP	0.889	0.908

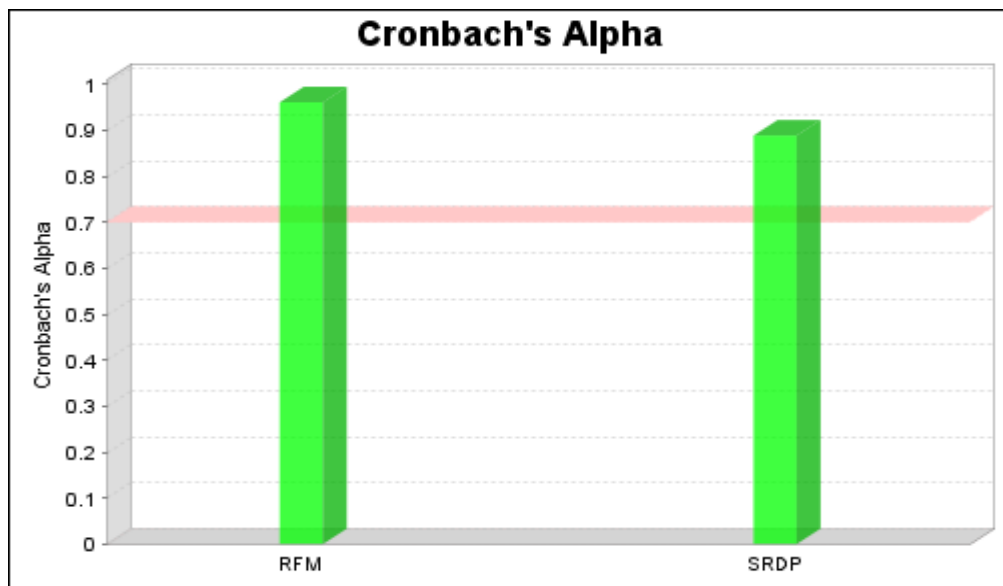
**Source:** Research data processing, 2021

To measure the construct reliability, based on the [Table](#) above, it can be observed as illustrated in the diagram below:

In addition, Cronbach's Alpha value is used to estimate the reliability degree of the construct. The Sustainable Nagari Development Performance construct has a Cronbach's Alpha value of 0.908. In contrast, the Nagari Financial management construct has a Cronbach's Alpha value of 0.971, as shown in the following Cronbach's Alpha diagram. This:



**Figure 3.** Composite Reliability Value Chart



**Figure 4.** Cronbach's Alpha. Value Chart

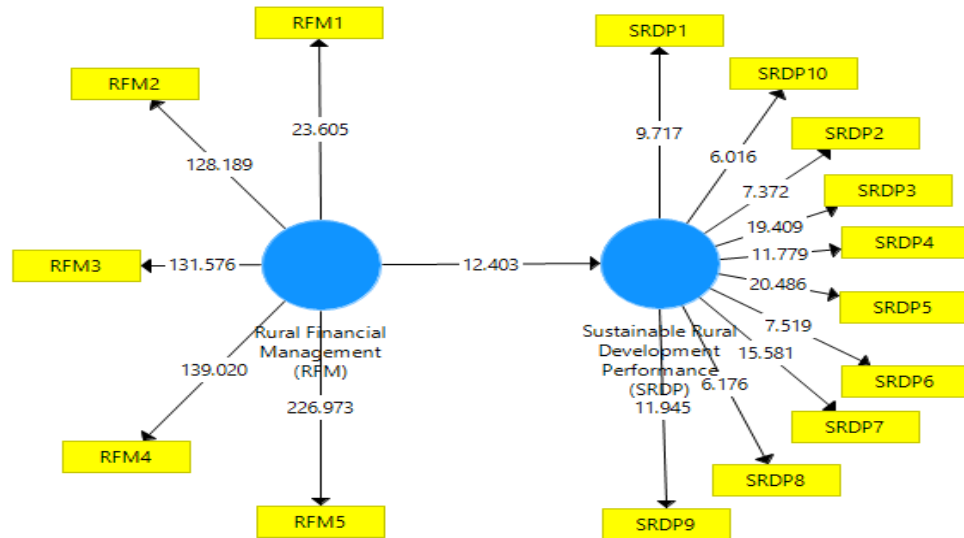
Suppose the construct meets the requirements for build reliability, where the Composite Reliability value must be greater than 0.70 and Cronbach's Alpha must be greater than 0.6. In that case, it can be determined that the construct is dependable and has a high degree of reliability.

### **Evaluation of Structural (Inner) Model**

Based on the evaluation results of the formed structural model, the RFM parameter coefficient for the Rural Financial Management (RFM) variable on the Sustainable Rural Development Performance (SRDP) variable is 0.549, indicating that Rural Financial Management has a positive effect on the performance of Sustainable Rural Development Performance. This means that the value of the quality of rural financial management increases along with the performance of sustainable rural development. As the quality of rural financial management improves, so will the performance of sustainable Nagari development. Adding one quality unit to rural Financial Management will add 54.9% to the value of Sustainable rural Development Performance. The estimated coefficient of Nagari Financial Management on the Performance of Sustainable Nagari Development is 0.162, with a t value of 12,403 > 1.96 and a standard deviation of 0.044, according to calculations utilizing bootstrapping or resampling. Then, the P value is 0.000 < 0.05, indicating that the hypothesis that the financial management of the Nagari has a substantial effect on the performance of sustainable village development in the Province of West Sumatra is statistically significant and may be accepted.

According to the data, the performance of sustainable Nagari development is also good in the Nagari of West Sumatra, which has solid financial management. This is because the financial management of the Nagari begins with quality planning, the implementation of the financial organization is excellent, the quality of financial administration is also excellent, accompanied by excellent financial reporting, and the quality of

the Nagari's financial accountability is also excellent. According to this research, all aspects of Nagari's financial management affect the performance of sustainable village development, providing that all other influencing factors remain constant.



**Figure 5.** PLS Bootstrapping Analysis Results Display

The investigation demonstrates that Nagari's financial management has a favourable and significant impact on its institutional development. According to the findings of this study, the institutional development in the villages of Nagari with superior financial management is likewise excellent. There is a natural propensity for institutional factors to evolve at the Nagari level. In Nagari, these institutional principles are developing successfully and quickly. This is demonstrated by the existence and enforcement of formal norms that may be administered, comprehended, and executed by the community. Economic institutions in the Nagari are also highly developed, and social capital in the Nagari increases and contributes to its development. Social institutions play a significant part in the village's growth.

Through the function of institutions in the Nagari in West Sumatra Province, Nagari financial management has a substantial indirect effect on the performance of sustainable Nagari development. This indicates that the improved financial management of the Nagari will indirectly influence the function of institutions in the province of West Sumatra in terms of the performance of sustainable Nagari development. Through the role of institutions within the Nagari and the economic growth of the Nagari in West Sumatra Province, Nagari financial management has a strong indirect effect on the Performance of Sustainable Nagari Development. This indicates that the financial management of the Nagari has no substantial indirect effect on the success of sustainable Nagari development, as measured by the Nagari's institutional role and economic growth.

## **Conclusion**

Based on the findings of this study, it can be concluded that the financial management of Nagari has a direct and considerable impact on the institution's performance. The better the Nagari's financial management, the better the Nagari's institutions. Moreover, it shows that Nagari's financial management indirectly affects the performance of sustainable village development via Nagari institution mediation. In addition, it was discovered that good Nagari financial management had a substantial impact on the economic development of the Nagari. The economic development performance of Nagari will also improve if its financial management is sound. The study indicated that the financial management of Nagari had a substantial impact on the performance of Nagari's sustainable development. In addition, it is recommended that future research be conducted in various regions, such as Java, Sulawesi, Kalimantan, or Papua, and provinces outside of the island of Sumatra. Adding sociocultural variables could enhance perspectives on sustainable development in the village and its relationship to financial management. The increased distribution of funding to the Nagari is influenced by the government's plan to pass a law on villages. Large allocations to Nagari necessitate competent administration to yield the anticipated worth of benefits. Based on this study's findings, the authors suggest the following:

As instructions for establishing financial management in the Nagari, assemble technical guidelines for the procedures for managing village funds, beginning with planning, implementation, administration, reporting, and accountability.

2. To consistently and regularly implement a program to enhance the talents and competencies of the Nagari government apparatus as the village finance manager.
3. To pay more attention to the development of institutional components in the Nagari to facilitate sustainable Nagari development performance.
4. To equalize economic growth in the Nagari through the design of priority development strategies based on the ability of each village to improve Nagari independence.
5. In empowering the Nagari government, engage additional elements from expert institutions, such as university scientists and professional practitioners, in aiding the Nagari government.
6. The Nagari's regulatory bodies can use the indicators of sustainable development presented in this study to shape its financial management policies accordingly

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