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ANALYSIS OF COMMUNITY COMPLIANCE WITH THE COVID-19 HEALTH PROTOCOLS: A QUANTITATIVE ANALYTICAL APPROACH

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ABSTRACT

This study identifies the factors used in factor analysis that influence the compliance of the people of Bali Province to the COVID-19 health protocol. Based on the factor analysis results, the elimination of four variables from the initial 20 variables in the study because the low communality value was below 0.5. Thus, reducing the remaining 16 variables to six factors with a total variance of 74.8%. Six factors influenced Community compliance in Bali Province, namely someone who knows about the importance of health protocols (19,1%), trust in protocols (15,9%), someone infected with COVID-19 (12,2%), a sense of concern for themselves and their families (10,1%), government supervision and sanctions (9,3%), and the affordable price of masks (8,2%). Observing this study, the first factor that played a role in increasing adherence was knowledge about the importance of health care. There was a sense of trust in health protocols, and a less influential factor was the affordability of masks.

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1. INTRODUCTION

The COVID-19 pandemic has infected almost all countries, including Indonesia, causing many casualties. Cases of death due to COVID-19 as of September 2, 2022, were recorded globally by the World Health Organization (WHO) as many as 6.472.914, while in Indonesia, there were 157.591 people [1]. Although the spread and transmission of COVID-19 are quite fast, prevention efforts can still be made by changing behavior by implementing the COVID-19 health protocol by the Indonesian government. The Indonesian government implemented three strategic frameworks in dealing with the surge in COVID-19 cases that occurred in Indonesia in accordance with instructions from the World Health Organization. First, behavior change efforts with washing hands, social distancing, and wearing masks. Second, detection with 3T (testing, tracing, and treatment). Third, vaccination [2]. At the provincial level, the ten provinces in Indonesia with the highest cases of COVID-19 are dominated by the islands of Java, Bali, Kalimantan, and Sumatra. The Governor of Bali has issued Circular Number 14 of 2021 concerning the Implementation of Level 4 Corona Virus Disease 2019 Restrictions on Community Activities in the New Era of Life Order in Bali Province. Through the circular, the people of Bali Province are urged to always comply with health protocols, namely wearing masks, washing hands, social distancing, reducing travel, increasing immunity, obeying rules and appeals not to gather, and limiting social activities with applicable regulations. Although on May 17, 2022, the government decided to loosen the policy on wearing masks for outdoor activities or in open areas [3], this does not necessarily indicate that COVID-19 has disappeared and the public can be free from health protocols. Therefore, it is necessary to conduct a study to identify the factors that influence people's compliance with the COVID-19 health protocol.

Behavior adheres to health protocols contained in social anthropology, viz socio-cultural sciences (such as anthropology, economics, human geography, psychology, political science, and sociology) involve the study of human socio-cultural life: beliefs, behavior, relationships, interactions, institutions, and the rest [4]. Social anthropology places particular emphasis on the cultural conditions in society. The concept of culture has a wide-ranging definition in this context. It refers to all the values, norms, knowledge, and traditions habitual in a society. Social anthropology aims to understand the various forms of life and social patterns that reflect and indicate the conditions of that culture. On the whole, social anthropology is the most qualitatively oriented discipline in the social sciences. Social anthropology places more emphasis on qualitative studies and less on quantitative studies than other disciplines [5].

In the era of the COVID-19 pandemic, several types of research from various scientific perspectives were carried out, with an emphasis on qualitative analysis directed at understanding the factors/determinants of public compliance with COVID-19 health protocols provided by the government to reduce the rate of virus infection. [6] uses a qualitative descriptive analysis technique to examine the public's perception of the health protocol in Baru Village, Batang Kuis District, Deli Serdang Regency. This showed negative public perceptions of the COVID-19 health protocol and non-compliant behavior.

Research by [7] used a qualitative descriptive in Sungai Sipai Martapura Village. The result demonstrates that the implementation of health protocol policies is measured by using indicators of communication, resources, disposition, and bureaucratic structure. The health protocol implementation policy has gone quite well even though the community does not often wash their hands when doing activities, often gathers together, and does not obey wearing masks when leaving the house. Therefore, public awareness is an inhibiting factor in implementing health protocols.

Still, with the qualitative method, [8] used triangulation methods to check the data validation and to know the community behavior when implementing the COVID-19 health protocol in Walurmaatus Village, Modoinding District. The results of in-depth interviews showed that the community had not 100% implemented the behavior of washing hands, wearing masks, and maintaining distance according to government recommendations. The community has not fully complied with the applicable protocols.

In contrast to the three previous studies that used qualitative methods as an analytical technique, this study applied quantitative methods with Exploratory Factor Analysis (EFA) to find the factor structure of the compliance of the people of Bali Province. The approach of using quantitative methods has the ability to identify and analyze patterns of behavior that are common among a large population. This method allows for the collection of data from a large sample that reflects the overall population. The data collected consists of measurable numbers, avoiding ambiguous interpretations and enabling objective analysis. Furthermore, this method enables the analysis of relationships between variables, such as connecting perceptions, communication, and compliance. The use of strong statistical analysis can help test hypotheses and gain a deeper understanding [9].

In the context of this research, the quantitative method is employed to identify factors influencing the compliance of the public with COVID-19 health protocols. Statistical techniques like EFA are used to identify key factors affecting compliance behavior. EFA is one of the multivariate analysis techniques by independent analysis technique. EFA allows for the collection of data from a large number of respondents representing a broad population. The results from EFA assist in identifying crucial factors impacting compliance rates, providing valuable insights for government or relevant institutions in intervention planning. The quantitative method also aids in reducing researcher bias through a more structured and objective approach. EFA can also help explain cause-and-effect relationships between different variables, aiding in formulating effective solutions to enhance compliance [10].

2. RESEARCH METHODS

This study's approach figures on statistical methods or techniques in analyzing research data [11]. In Factor Analysis (FA), for p variables x and m factors F, $m \ll p$, linear relationship between $\boldsymbol{X} = (x_1, \dots, x_p)$ with $\boldsymbol{F} = (F_1, \dots, F_m)$ can be written as [12]:

$$\begin{gathered} x_1 - \mu_1 = l_{11}F_1 + \cdots + l_{m1}F_m + \epsilon_1 \\ \cdots \\ x_p - \mu_p = l_{m1}F_1 + \cdots + l_{mp}F_m + \epsilon_p \end{gathered} \tag{1}$$

Using notation of matrix, Equation (1) can be summarized into the following form:

$$\begin{pmatrix} x_1 - \mu_1 \\ \cdots \\ x_p - \mu_p \end{pmatrix} = \begin{pmatrix} l_{11} \dots l_{p1} \\ \ddots \\ l_{p1} \dots l_{pm} \end{pmatrix} \times \begin{pmatrix} F_1 \\ \cdots \\ F_m \end{pmatrix} + \begin{pmatrix} \epsilon_1 \\ \cdots \\ \epsilon_p \end{pmatrix}$$

or

$$X_{p\times 1} - \mu_{p\times 1} = \Lambda_{p\times m} \times F_{m\times 1} + \epsilon_{p\times 1} \tag{2}$$

In Equation (2), $\boldsymbol{X}$ and $\boldsymbol{F}$ represent the observed vectors and the factor structure formed, $\boldsymbol{\Lambda}$ is the factor loading matrix of size $p \times m$, and $\epsilon_{p\times 1}$ represents the residual vector.

The primary data in this study was obtained by distributing questionnaires to 120 respondents, calculated from 5 respondents per item multiplied by 20 items on the questionnaire, plus 20 respondents to anticipate if there were incomplete fill sheets. In this study, the sampling method utilized is the stratified random sampling technique. This approach is a statistical method employed to enhance the accuracy of the sample by reducing sampling errors [13].

In this research, the strata are determined based on the number of regencies/cities in the study area to obtain a proportional sample size in each regency/city. The sample used comprises the number of households in each regency/city to achieve a better representation of the existing variations within the overall population, gain deeper insights into the societal conditions and way of life, and analyze group behaviors and habits such as lifestyles and social dynamics within the family environment.

The formula for the stratified random sampling technique in sampling is [14]:

$$n_h = n\frac{N_h}{N} \tag{3}$$

where N_h represents the number of households in each regency/city, N represents the total number of households, and n represents the total of sampling units. Using Equation (3), stratified random sampling is used to obtain the number of samples. For example, to get the sample size for Jembrana Regency, it is 81,114 divided by 1,180,100 times 120 ≈ 8. The distribution of respondents based on regency/city is shown in Table 1.

Table 1. Distribution of Respondents by Regency/City

Regency/City	Household	Sample Proportion
Jembrana Regency	81,114	8
Tabanan Regency	114,388	12
Badung Regency	183,590	19
Gianyar Regency	112,274	11
Klungkung Regency	46,185	5
Bangli Regency	59,723	6
Karangasem Regency	110,636	11
Buleleng Regency	179,547	18
Denpasar City	292,606	30
Province of Bali	**1,180,100**	**120**

Table 1 shows the number of households in eight regencies and a city in the Province of Bali. Identification of the compliance of the people of the Province of Bali to the COVID-19 health protocol using the EFA is carried out through the following series of steps.

1. Designing a sampling framework, with the distribution of respondents' locations shown in **Table 1**;
2. Designing a survey questionnaire. There are 20 statements to determine the structure of the compliance factor of the people of the Province of Bali;
3. Checking item validity and questionnaire reliability at the pre-research stage with 50 trial samples;
4. Conducted a proportional survey of 120 respondents who live in eight regencies and a city;
5. Used EFA to find the factor structure of the Balinese people's compliance with the COVID-19 health protocol. The analysis was conducted utilizing the R 4.1.2 software, employing the psych library and the following algorithm **[15][16]**:
   Factor Analysis Algorithm:
   1) Load the psych library by using the library() function.
   2) Input your data using the data.frame() function.
   3) Use the fa() function to fit an exploratory factor analysis (EFA) model with your chosen number of factors and rotation method.
   4) Extract the factor loadings using the factor.loadings() function.
   5) Interpret the factor structure based on the factor loadings you obtained.

   Principal Axis Method:
   1) Load the psych library using the library() function.
   2) Input your data using the data.frame() function.
   3) Apply the factor.pa() function to fit an EFA model with your desired number of factors.
   4) Extract the factor loadings using the factor.pa() function.
   5) Interpret the factor structure based on the factor loadings you obtained.

   It's important to keep in mind that in programming, parentheses "()" generally indicate the place where arguments are supplied as input to a function in order to carry out specific actions or operations.
6. Draw conclusions from the analysis outcomes of the formed factors to address the research objectives.

3. RESULTS AND DISCUSSION

3.1 Validity and Reliability Test

The validity and reliability of the questionnaire design were checked by distributing questionnaires to 50 people at the pre-research stage. A statement item is considered valid if its correlation coefficient with other items (ρ_{item}) is above or equal to 0.3 and the construct measured in the questionnaire has a coefficient greater than or equal to 0.6 **[10]**.

Table 2. **Instrument Validity and Reliability Test**

Kode	Statement Items	Correlation Coefficient (ρ)
X_1	Someone as a role model	0.65
X_2	Information media, such as posters	0.65
X_3	Information media, such as advertisements	0.66
X_4	Information media such as billboards	0.65
X_5	Outreach by the government	0.64
X_6	COVID-19 case increase	0.62
X_7	Overseen by COVID-19 task force officers	0.58
X_8	Worried about COVID-19 infected	0.83
X_9	Care about your own health	0.89
X_{10}	Caring for the health of those closest to you	0.69
X_{11}	Strict sanctions	0.48
X_{12}	Easy to get masks	0.63
X_{13}	Availability of hand washing facilities in public areas	0.67
X_{14}	Have been positive for COVID-19	0.33
X_{15}	Families in the same house have been positive for COVID-19	0.34
X_{16}	Friends/relatives from different homes have been positive for COVID-19	0.42
X_{17}	Trust the effectiveness of the mask	0.64
X_{18}	Trust the effectiveness of washing hands	0.63
X_{19}	Trust the effectiveness of social distancing	0.60
X_{20}	Affordable mask price	0.49
Cronbach Alpha		**0.89**

Examination of the validity of the statement items shows that all statements have a value of >0.3. This proves the item has adequate validity as a measure. Cronbach's coefficient value of 0.89 is also above the specified 0.6. Taking into account the validity of the statement items and the reliability of the questionnaire, the instrument was declared feasible to be used to collect research data.

3.2 Basic Assumptions of Factor Analysis

Factor analysis consists of several steps, namely testing the correlation matrix, factor extraction, and factor rotation. In factor analysis, there are loading values and communality values. The loadings value is the correlation between variables and factors, which is used as the basis for determining the factors of a variable. A minimum loading value of 0.3 to 0.4 is considered significant, so a variable with a loading value of 0.3 is considered important enough to be interpreted as a factor.

The EFA stage begins with checking the feasibility of the $\mathrm{X}_{\mathrm{n}\times\mathrm{p}}$ data matrix, where n represents the sample size and p is the number of variables. The data matrix feasibility test went through several tests. First, check the Kaiser-Meyer-Olkin (KMO) stats, which can be calculated using **Equation (4)**:

$$\mathrm{KMO} = \frac{\sum_{i=1}^{p}\sum_{j=1}^{p} r_{ij}^2}{\sum_{i=1}^{p}\sum_{j=1}^{p} r_{ij}^2+\sum_{i=1}^{p}\sum_{j=1}^{p} a_{ij}^2} \quad (4)$$

In **Equation (4)**, a_{ij} is a partial correlation coefficient of the i-th variable. The KMO statistic indicates that the data is suitable for analysis if the KMO is > 0.50 **[17]**. The results of the analysis show the KMO value of 0.887, above the lower limit of 0.50 required. Thus, KMO statistical criteria also justify FA eligibility. The second indicator that is also examined to determine the feasibility of FA is the Bartlett Test, which examines the determinants of the correlation matrix $\mathrm{R}_{\mathrm{p}\times\mathrm{p}}$ through hypotheses:

$$\mathrm{H}_0: \left|\mathrm{R}_{\mathrm{p}\times\mathrm{p}}\right| = 1$$
$$\mathrm{H}_1: \left|\mathrm{R}_{\mathrm{p}\times\mathrm{p}}\right| \neq 1$$

H_0 is rejected if the Bartlett statistic $\left(\chi^2_{\mathrm{Bartlett}}\right) > \chi^2_{(p\times(p-1)/2)}$ on the significant test was selected; p denotes the number of variables, and is calculated using **Equation (5)**.

$$\chi^2_{\mathrm{Bartlett}} = -\left(\mathrm{n} - 1 - \frac{2\mathrm{p}+5}{6}\right) \times \ln|R| \quad (5)$$

If H_0 is rejected or the determinant of the matrix is not proven to be 1, then the p variables are correlated with each other which indicates that AF is feasible. The results of the analysis show $|R_{p\times p}| = 0.0000014$ with $\chi^2_{Bartlett} = 1501.307 > \chi^2_{(0.05)190} = 223.160$, or H_0 is not acceptable and means that the data matrix $X_{120\times 20}$ deserves to be analyzed.

3.3 Factor Extraction and Rotation

Estimation of the number of factors extracted in the original data matrix that has been proven to be suitable for analysis using EFA is done by making a scree plot that maps the combination of the number of factors that can be formed (horizontal axis) with eigenvalues (vertical axis). The recommended number of extracted factors is the number (factor) with eigenvalues > 1. **Figure 1** shows the scree plot of the original data.

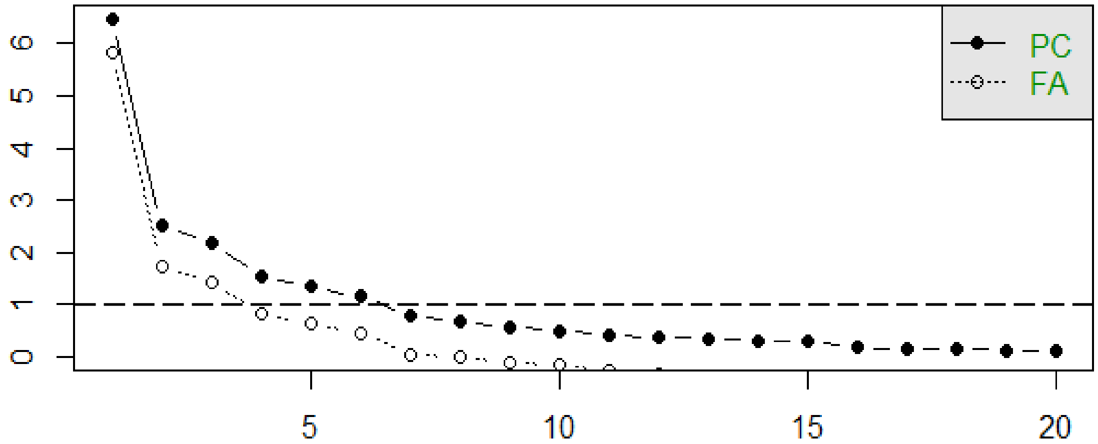


Figure 1. **Scree plot of data matrix**

Figure 1 shows 6 factors with eigenvalues above 1, with values of 6.47, 2.52, 2.16, 1.55, 1.33, and 1.15, respectively. Thus, 6 factors were determined as the structure of the community's compliance with the COVID-19 health protocol. The formation of the factor structure was carried out using the principal axis method with the selected rotation technique oblique rotation using the oblimin method.

Table 3. **EFA Results for Original Data Matrix**

Variable	Standardized Factor Loading (FL)						h^2
	PA1	PA2	PA3	PA4	PA5	PA6	
X_1	0.548	0.060	-0.069	-0.087	0.111	-0.195	0.366
X_2	0.680	0.230	-0.479	-0.122	-0.057	-0.097	0.773
X_3	0.698	0.329	-0.490	-0.164	-0.077	0.009	0.869
X_4	0.728	0.305	-0.489	-0.218	-0.093	-0.090	0.927
X_5	0.661	0.255	-0.149	-0.093	-0.194	0.010	0.570
X_6	0.401	0.196	0.122	0.325	-0.090	0.057	0.331
X_7	0.459	0.199	0.135	0.444	-0.388	0.076	0.622
X_8	0.544	0.008	-0.041	0.288	0.061	0.116	0.397
X_9	0.646	-0.140	-0.180	0.272	0.387	0.157	0.718
X_{10}	0.562	-0.196	-0.162	0.343	0.600	0.113	0.871
X_{11}	0.483	0.140	0.303	0.414	-0.408	0.094	0.691
X_{12}	0.566	-0.213	0.318	0.070	0.136	-0.382	0.636
X_{13}	0.602	-0.124	0.177	0.034	0.082	-0.203	0.458
X_{14}	0.062	0.595	0.424	-0.106	0.169	0.106	0.589
X_{15}	0.064	0.677	0.389	-0.110	0.197	0.075	0.670
X_{16}	0.197	0.619	0.417	-0.184	0.232	0.044	0.685
X_{17}	0.657	-0.412	0.346	-0.219	-0.065	0.152	0.796
X_{18}	0.693	-0.373	0.226	-0.264	-0.110	0.333	0.863
X_{19}	0.676	-0.382	0.235	-0.389	-0.048	0.224	0.862
X_{20}	0.471	-0.149	0.363	-0.030	-0.054	-0.571	0.706
SS	6.17	2.21	1.92	1.19	1.07	0.84	000
VE	0.31	0.11	0.10	0.06	0.05	0.04	000

Variable	Standardized Factor Loading (FL)						h^2
	PA1	PA2	PA3	PA4	PA5	PA6	
Tucker Lewis Index (TLI)							0.933
Root Mean Square of Error Approximation (RMSEA)							0.06
Root Mean Square of Error (RMSE)							0.03
Total Variance (%)							0.67

Information:
h^2: communality; SS: sum of squares of FL; VE: the proportion of variance extracted on each factor.

During the factor extraction process. It was found that 4 variables with communality values were less than 0.5, indicating that the variance of statements distributed to the six factors was less than half, which is shown in **Table 3**. The commonality value (h^2) is the total variance distributed from the initial variable by factor formed, which is calculated as the sum of the squared loadings of each row of the factor matrix. Variables with a communality value below 0.5 will be excluded from the analysis because they do not have sufficient diversity to share.

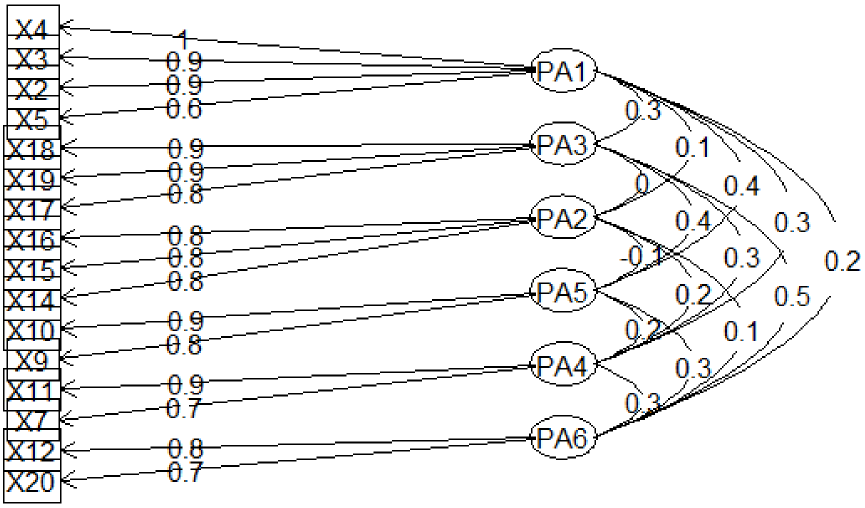
In this study, successively X_6, X_8, X_1, dan X_{13}, are eliminated gradually starting from the variable with the lowest communality value in each iteration. The final EFA results for the data matrix after removing the 4 variables are shown in **Table 4**.

Table 4. AFE Results for Final Data Matrix

Variable	Standardized Factor Loading (FL)						h^2
	PA1	PA3	PA2	PA5	PA4	PA6	
X_4	0.973	0.010	0.002	-0.029	-0.038	0.038	0.927
X_3	0.919	0.003	0.028	0.051	0.015	-0.062	0.881
X_2	0.863	-0.038	-0.058	0.064	-0.012	0.046	0.773
X_5	0.609	0.154	0.084	-0.073	0.206	-0.001	0.562
X_{18}	0.016	0.929	-0.018	0.040	0.056	-0.083	0.871
X_{19}	0.061	0.911	0.016	-0.015	-0.070	0.013	0.833
X_{17}	-0.076	0.833	-0.012	0.015	0.014	0.153	0.810
X_{16}	0.057	0.039	0.824	0.000	-0.066	0.084	0.694
X_{15}	0.013	-0.069	0.800	-0.016	0.004	-0.003	0.652
X_{14}	-0.080	0.011	0.777	0.020	0.075	-0.087	0.614
X_{10}	-0.019	-0.018	0.007	0.876	-0.063	0.088	0.776
X_9	0.075	0.068	-0.009	0.846	0.091	-0.064	0.827
X_{11}	-0.046	0.032	0.011	-0.002	0.928	0.029	0.877
X_7	0.130	-0.081	-0.012	0.042	0.692	0.036	0.534
X_{12}	-0.017	0.037	0.019	0.170	0.031	0.780	0.752
X_{20}	0.066	0.050	-0.002	-0.135	0.068	0.732	0.578
SS	3.052	2.540	1.944	1.617	1.496	1.313	
VE	0.191	0.159	0.122	0.101	0.093	0.082	
Tucker Lewis Index (TLI)							0.936
Root Mean Square of Error Approximation (RMSEA)							0.07
Root Mean Square of Error (RMSE)							0.02
Total Variance (%)							0.75

Information:
h^2: communality; SS: sum of squares of FL; VE: the proportion of variance extracted on each factor.

The final result of AFE with 4 items eliminated from the analysis, examination of the data matrix $X_{120\times16}$ gives the value of KMO = 0.76; measure of sampling (MSA) values for the 16 measuring items are in the range of values 0.60 (X_{10}) to 0.89 (X_5); and the value of $\chi^2_{\text{Bartlett}} = 1276.308 > \chi^2_{(0.05)120} = 146.567$, or H_0 is unacceptable and means that the data matrix $X_{120\times16}$ deserves to be analyzed. In the goodness of fit (GoF) indicator of the formed factor structure, the TLI of 0.936 has crossed the recommended lower limit of 0.90. Likewise, the RMSE and RMSEA values were 0.02 and 0.07, respectively, smaller than the recommended lower limits of 0.08 and 0.09. The total variance extracted from the 16 measuring variables is 75%, which is greater than the initial factor structure. The factor structure formed in the final analysis results is shown in **Figure 2**.

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PA1: Someone who knows about the importance of health protocols
PA3: Trust in protocols
PA2: Someone who has been infected with COVID-19
PA5: Sense of concern for themselves and their families
PA4: Government supervision and sanction
PA6: The price of masks affordable
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Figure 2. Factor structure of Bali Province Community Compliance with COVID-19 Health Protocols

The interpretation and naming of the PA1 – PA6 factors in Figure 2 is done by observing the loading value of the measuring variable, shown in Table 5.

Table 5. Factor Naming

Factor Name	Variable Description	Kode	FL
PA1: Someone who knows about the importance of health protocols	Information media such as billboards	X_4	0.973
	Information media, such as advertisements	X_3	0.919
	Information media, such as posters	X_2	0.863
	Outreach by the government	X_5	0.609
PA3: Trust in protocols	Trust the effectiveness of washing hands	X_{18}	0.929
	Trust the effectiveness of social distancing	X_{19}	0.911
	Trust the effectiveness of the mask	X_{17}	0.833
PA2: Someone who has been infected with COVID-19	Friends/relatives from different homes Have been positive for covid-19	X_{16}	0.824
	Families in the same house have been Positive for covid-19	X_{15}	0.800
	Have been positive for COVID-19	X_{14}	0.777
PA5: Sense of concern for themselves and their families	Caring for the health of those closest to you	X_{10}	0.876
	Care about your own health	X_9	0.846
PA4: Government supervision and sanctions	Strict sanctions	X_{11}	0.928
	Overseen by COVID-19 task force officers	X_7	0.692
PA6: The price of masks affordable	Easy to get masks	X_{12}	0.780
	Affordable mask price	X_{20}	0.732

Using the oblimin rotation method, the six extracted factors correlated with each other with the correlation matrix between factors shown in Table 6.

Table 6. Factor Correlation Matrix

Factor	PA1	PA3	PA2	PA5	PA4	PA6
PA1	1.0	**0.3**	0.1	**0.4**	**0.3**	0.2
PA3		1.0	0.0	**0.4**	**0.3**	**0.5**
PA2			1.0	-0.1	0.2	0.1
PA5				1.0	0.2	**0.3**
PA4					1.0	**0.3**
PA6						1.0

Table 6 shows that there are 4 correlation coefficients ρ (bold) which are >0.3. According to [18], the correlation coefficient below 0.4 is classified as a weak correlation, so by looking at 15 pairs of correlation coefficients from 6 factors, there are 3 pairs of factors that are quite valuable to be interpreted.

3.4 Discussion

The first factor, access to information about COVID-19 is the dominant factor, with an extracted variance of 19%. This factor structure is characterized by sources of information acquisition through billboards, advertisements, posters, and socialization from government elements related to COVID-19. In [19] explained that the information obtained from various sources will affect the level of one's knowledge. The more information obtained the knowledge possessed will be wider. In [20] used TPB and found that information sources positively influence prevention behavior. State policy-oriented people cannot self-regulate their behavior to comply with the COVID-19 protocol. The discovery of the first factor is in line with [21], which states that many sources of information will enrich information and knowledge for the community. For institutions, information is very helpful in achieving the goals set.

The second factor, public trust in health protocols is the second factor with an extracted variance of 16%. This factor is characterized by a belief in the effectiveness of washing hands, keeping a distance, and wearing masks. According to a survey conducted [22], it was found that trust plays an important role in efforts to prevent the transmission of COVID-19. Based on the three social capitals measured, namely trust, cooperation, and the presence of rules/sanctions, trust is the highest social capital (90.7%). The findings from this study are in line with those obtained by previous studies that a good understanding will grow trust and cooperation between communities to prevent COVID-19. Trust is an important basis for someone to obey and "follow" a rule that applies, of course, has a good purpose. Moreover, political trust is an essential predictor of adherence to government policies, especially in natural disasters or public health emergencies [23].

This research found that the third factor of community compliance in Bali is the history of someone who has been infected by COVID-19, which is called "Someone who has been infected with COVID-19", with an extracted variance of 12.2%. In [24] also found that the risk of infected factor is 27.5% to motivate public compliance with the COVID-19 preventive recommendations by the government.

Observing the correlation matrix between factors in Table 6, trust in the effectiveness of health protocols is a factor that has a significant correlation with four other factors. Although the difference in variance extracted between the first factors is very small (3%), this shows that trust is an important or most dominant factor in people's compliance with the COVID-19 health protocol.

4. CONCLUSIONS

Research on the compliance of the people of Bali Province to the COVID-19 health protocol using a quantitative approach found six factors that played a role in community compliance with an extracted variance of 75%. The six factors are named: 1) Someone who knows about the importance of health protocols (19.1%), 2) Trust in protocols (15.9%), 3) Someone who has been infected with COVID-19 (12.2%), 4) Sense of concern for themselves and their families (10.1%), 5) Government supervision and sanctions (9.3%), and 6) The price of masks affordable (8.2%). Research with a quantitative approach gives more measurable results and can find more specific factors of compliance. Researchers hope that the results of this study can be used as well as possible, noting that COVID-19 cases are still fluctuating so that the government and the community put more emphasis on important aspects that can improve community compliance in efforts to prevent COVID-19 transmission.

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