Bakti and Sayan traditions among the Tenggerese people in East Java: the role of indigenous institutions in integrated elderly care development in Indonesia

Wiliandri, R.

CHAPTER III METHODOLOGY AND ANALYTICAL MODEL

3.1 Selection of Research Methodology

3.1.1 Research Methods and Techniques

This chapter presents the research methodology and techniques applied in this study. This research uses the 'Leiden Ethnosystems' Approach', which has specifically been developed by Slikkerveer (1990), to study people's behaviour in the community. The 'Leiden Ethnosystems' Approach' is an ethnoscience methodological approach that has three basic elements: the 'Participant's View' (PV), the 'Field of Ethnological Study' (FES), and the 'Historical Dimension' (HD). The 'Leiden Ethnosystems' Approach' is a combination accommodating an in-depth study and description of the 'emic' view of the local people on their life and livelihood, based on their indigenous knowledge, belief, and practice as they have evolved over many generations in the specific cultural area (*cf.* Slikkerveer 1999). The approach is used to understand and explain local systems of knowledge, belief, and practice from an 'emic' perspective in the context of sustainable development.

This research combines qualitative and quantitative research methods. The qualitative study is based on both participative and non-participative observations, and interviews with key informants. It is used to accurately capture real behaviour and perceive participants' needs and feelings towards elderly care institutions and organisations, based on places, care providers, and availability of care and support services. Moreover, the qualitative method can produce detailed information about care behaviour, including support services for the elderly and how adult children ensure the elderly's well-being and security. A literature review of studies on the elderly is also carried out to offer insights for interpreting the data.

The fieldwork starts with a preliminary study of secondary data and interviews with some key informants, followed up by qualitative research. Furthermore, it is followed by a formal questionnaire using quantitative methods to conduct household surveys in the sample communities in the study areas. The design of the questionnaire is based on the analytical model adapted from Slikkerveer (1990). The background characteristics of the target sample survey are based on the appropriate sampling technique for collecting quantitative data. The target sample survey is the adult children household heads who have elderly and provide care of them. The respondents are documented as utilisers of elderly care institutions and organisations by structured and pre-coded questionnaires for the household surveys in the research area. The validation of the questionnaires is based on the establishment of face validity, followed by a pilot test of the survey on a subset of the target population, and concluded by a review of the responses in a spreadsheet to secure internal consistency of the questions for reliability and validity of the questionnaires.

A representative data set in SPSS is then designed and completed in line with the appropriate analytical model called the multivariate model of utilisation behaviour. The construction of the analytical model is selected and implemented to analyse the variables which appear to be involved in the establishment process of people's behaviour patterns towards the utilisation of any care provided by the institution and organisation, particularly in the use of the plural elderly care system. Slikkerveer (1990) has developed a model to measure significant changes of participants' well-being based on the Transcultural Health Care Utilisation Model introduced by Slikkerveer (1990; 1995), representing the plural medical systems in the Horn of Africa. Thereafter, this model has also been applied and adapted in various topics of ethnoscience-oriented research such as in Indonesia by Agung (2005), Leurs (2010), Djen Amar (2010), Ambaretnani (2012), Erwina (2019), Saefullah (2019), and Febriyanti (2021), in Tanzania by Chirangi (2013) and De Bekker (2020), and in Greece by Aiglsperger (2014). The construction of the analytical model and its components follows the objectives of the research. In this research, the analytical model can be used to identify people's preferences in utilising the plural elderly care system, *i.e.* the traditional elderly care institutions, and the transitional and modern elderly care organisations.

This research has been conducted in among the Tenggerese population of East Java, which includes the Tenggerese and Javanese population groups in the research area. The Tenggerese people have traditions and customs that are still preserved by local people. The Tenggerese people live in the Tenggerese highlands represented by two rural villages: Argosari and Ngadas. Argosari is located in the Senduro sub-district, Lumajang, while Ngadas is located in the Poncokusumo sub-district, Malang. The research is also conducted in two urban areas: *kelurahan* Ditotrunan (Ditotrunan urban village), Lumajang and *kelura han* Tlogomas (Tlogomas urban village), Lowokwaru, Malang. These two urban villages represent the Javanese ethno-cultural group. The aim of this research is to study the pattern of utilisation behaviour of elderly care from the adult children's perspective.

3.1.2 The 'Leiden Ethnosystems' Approach'

The 'Leiden Ethnosystems' Approach' introduces the study of Indigenous Knowledge Systems (IKS) by linking the cognitive aspect of investigating local systems of knowledge, practice, and belief to the behavioural components in the processes of development and change in the community. In practice, the 'Leiden Ethnosystems' Approach' follows three methodological principles: (1) the 'Participant's View' (PV), (2) the 'Field of Ethnological Study' (FES), and (3) the 'Historical Dimension' (HD).

Slikkerveer (1999: 173) defined the Participant's View (PV) as a broad concept that includes: '*the assessment of symbolic representations, world-views (cosmologies or cosmovisions), culture-bound philosophies of nature and the environment, perceptions, attitudes, opinions, etc. as part of the underlying structure of values, norms and belief systems, which characterize specific cultures.'* So, the PV principle provides a non-normative, local assessment of indigenous systems of knowledge, practices, and beliefs, thereby corresponding to an 'emic' research approach from the participants' standpoint. Moreover, PV refers to the local population's point of view on their own way of life. The PV has become a major guiding principle in policy planning and implementation at the local level, including the system of management, use and conservation of natural resources (*cf.* Ibui 2007). In the PV context, this research studies the local people's views among the Tenggerese people, including the Javanese, related to their perception of care of the elderly's care providers and their preferences for the utilisation of the elderly care institution and organisations.

This research is conducted from the 'emic' view which involves the perspectives of the cultures from the local people's perception rather than the 'etic' view which is taken from the researchers' outsiders perception. The 'Field of Ethnological Study' (FES) is related to the concept of 'culture area' and refers to a geographical region where cultural features can be compared between different ethno-cultural groups in that same region (*cf.* Slikkerveer 1999). Indonesia has a wide variety of sub-cultures characterised by language, religion, kinship, tradition, and other cultural aspects such as arts, music, dance, and cuisine. The Javanese people constitute the largest Indonesian ethno-cultural group which also has many sub-groups, such as Osing, Tenggerese, Samin, Bawean, Naga, Naganese, Banyumasan etc. (*cf.* BPS 2011). In addition, the Javanese people have similar perceptions and practices in their daily life, *i.e.* the root of the term *gotong royong.* According to Koentjaraningrat (1961) in Slikkerveer (2019b), *gotong royong* can be categorised into two types: (1) *spontaneous help* such as collective activities in agriculture, house building, celebrations, public works, event of disaster or death, and (2) *mutual assistance* based on the traditional principle of individual reciprocity.

As mentionen above, *gotong royong* can be defined as a set of institutionalised norms, values and activities by people carrying out a communal task together. As mentioned above, Slikkerveer (2019b) concisely encapsulates the concept of g*otong royong* as 'voluntary mutual aid and communal work', which provides a useful reference to this study, where the fieldwork area for this study is restricted to the Javanese areas occupied by the Tenggerese people in East Java, Indonesia. The Javanese population, including the Tenggerese population, have special cultural practices for care of the elderly: *bakti* and *sayan* as local traditions, elaborated in Chapters V to VII. The 'Historical Dimension' (HD) facilitates the analysis of the historical perspective of development processes. Moreover, the HD concept facilitates the assessment of the cognitive and behavioural components of the community studied. It includes the analysis of the complex contemporary patterns including culture, religion,

agriculture, living and care arrangements, support for the elderly, and livelihood strategies to secure old age. Those aspects will influence the current user behaviour towards the utilisation of the plural elderly care system in Java, particularly in the Tengger Region in East Java.

3.1.3 The Multivariate Utilisation Model of the Plural Elderly Care System

The study focuses on knowledge, belief, and practice among the Javanese people, and particularly among the Tenggerese people, related to care of the elderly towards the utilisation behaviour of elderly care institutions. Conceptualisation of the utilisation behaviour of the plural elderly care system in East Java in this research uses the central reference model by Slikkerveer (1990). The model is designed to describe health care utilisation in the plural medical system, as the basis of the multivariate model. Slikkerveer's model (1990) was also inspired by the early multivariate models, one of them being Andersen's (1968) behavioural model which proves that health services utilisation is determined by predisposing factors such as socio demographic, need factors, and enabling factors (*cf*. Andersen 1995; Andersen & Newman 1973). Bradley *et al.* (2002) later expands Andersen's model using long-term institutional care by adding psycho-social factors such as attitudes, knowledge, and social norms.

On the other hand, Slikkerveer's (1990) multivariate model provides a means to determine the relationship between the six blocks of factors as the possible determinants of variation in health-care utilisation, namely socio-demographic, socio-psychological, socio-cultural, economic, geographic, and organisational factors. Slikkerveer's (1990) multivariate model has thereafter been successfully adapted and applied in similar IKS-based studies in (A) Africa: in Kenya by Ibui (2007), in Tanzania by Chirangi (2013), and De Bekker (2020); (B) Indonesia: in Bali by Agung (2005), Leurs (2009), in Java by Djen Amar (2010), Ambaretnani (2012), Erwina (2019), Saefullah and Febriyanti (2019); and (C) in the Mediterranean Region: in Crete by Aiglsperger (2014). Slikkerveer's (1990) multivariate model facilitates the description and explanation of how an individual or social system changes over time. Moreover, Slikkerveer (1990) showes that factors at the individual level can be elevated to the systems level, in order to allow a comparative analysis between factors related to both individuals and systems.

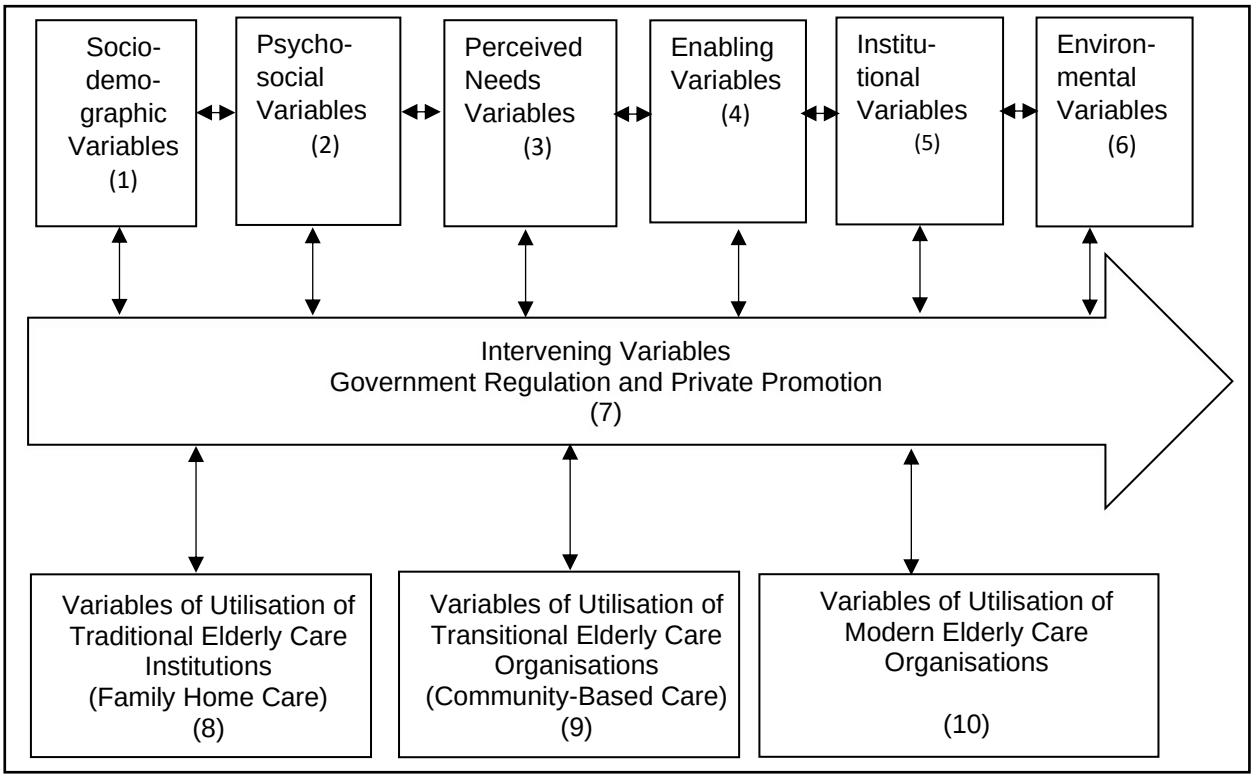

Figure 3.1 Conceptual Model Indicating the Blocks of Factors of the Utilisation Behaviour of Traditional Elderly Care Institutions, Transitional, and Modern Elderly Care Organisations.
Source: Adapted from Slikkerveer (1990).

This model consists of independent, intervening, and dependent factors, defined as variables in the model. The independent factors consist of the predisposing, enabling, needs, institutional, and environmental variables. More specifically, the predisposing factors incorporate the socio-demographic and psycho-social variables. The intervening factors include variables of the government or public and private programmes. In this research, the dependent variables are divided into three kinds of utilisation of institutions: traditional, transitional and modern elderly care organisations. Figure 3.1 shows the interaction between the independent, intervening, and dependent variables. Each reported independent and intervening variable included in the model is analysed as a potential determinant of the reported dependent variables of utilisation behaviour of elderly care institutions in the research area.

The research aims to discover the characteristics of the local people, and how their circumstances influence their preferences towards the utilisation of the traditional elderly care institutions, or the transitional or modern elderly care organisations. Their preference can be documented through the reported utilisation behaviour determined by several factors, such as the people's characteristics including their background and environment. Those factors can influence human behaviour and decision-making on the utilisation of elderly care institutions and organisations under particular circumstances.

The design of the household questionnaire is adapted from the conceptual model introduced by Slikkerveer (1990; 1999). Table 3.1 describes the general design structure of the household questionnaire in this research in East Java.

Table 3.1 General Design of the Structure of the Household Questionnaire

Section	Block	Variable Description
A. General Background		
Background Information	0	General Information
B. Independent Variables		
B.1 Predisposing Variables	1	Socio-Demographic Variables
	2	Psycho-Social Variables
B.2 Perceived Needs Variables	3	Perceived Needs Variables
B.3 Enabling Variables	4	Socio-economic Variables
B.4 Institutional Variables	5	Institutional Variables
B.5 Environmental Variables	6	Environmental Variables
C. Intervening Variables		
	7	Government regulations and Private promotions
D. Dependent Variables		
	8	Use of Traditional Elderly Care Institutions
	9	Use of Transitional Elderly Care Organisations
	10	Use of Modern Elderly Care Organisations
E. General Questions		
		Additional Qualitative Data
		Specific Problems and Solutions

Source: Adapted from Slikkerveer (1990).

3.1.4 Operationalisation of the Conceptual Model

In order to operationalise the model into an adequate measurement tool, the general theoretical concepts from the literature study called 'blocks of factors' are 'converted' into 'variables.' Using a deductive process, the 'blocks of factors' are at first specified as 'concepts' which are then 'translated' into measurable factors called 'variables.' After that, each variable is concretised by several indicators and answer categories pre-coded in the questionnaires. Bice *et al.* (1976:24) demonstrate that the process of measurement involves: '*specifying a concept, translating it into an operational definition which points to a variable that can be measured, and applying the operationally defined measurement technique to units of its indicators and related categories*.'

In this context, it is essential to determine measurement scales of selected variables [3.1]. As Slikkerveer (2019c:196) rightly argues that: '*it is important to make a differentiation between the various possible classes of measurement of the selected variables, especially since the type of scale is decisive for the later determination of the appropriate significance tests in the various analyses of collected data.*' Moreover, the characteristics of each different block of factors (concepts), variables, indicators and categories are described separately in relation to the various blocks identified in the model. Tables 3.2 to 3.11 present an overview of the operationalisation of the block of factors (concepts) into variables up to the level of the categories based on the indicators.

Independent Predisposing Factors

The predisposing factors operate at the individual level, and refer to a series of socio-cultural background characteristics of the respondents combining 'hard' socio-demographic and 'soft' psycho-social factors (*cf.* Slikkerveer 1990; Aiglsperger 2014). Coulton & Frost (1982) state that predisposing factors are individual characteristics that may affect the perceived need or service utilisation. Moreover, predisposing variables cover not only demographic characteristics but also beliefs and attitudes towards certain matters (*cf.* Calysin & Winter 2011). This research indicates two types of predisposing factors: socio-demographic and psycho-social factors. The block of socio-demographic factors represent variables such as gender, education, age, marital status, occupation, place of birth, etc. On the other hand, the block of psycho-social factors refers to respondents' knowledge, opinions, and beliefs. Table 3.2 demonstrates the concept operationalisation of the block of socio-demographic factors into variables, indicators, and categories.

Table 3.2 Block 1: Independent Predisposing Factors: Socio-Demographic Factors.

Concept	Variable	Indicator	Category
Socio-demographic factors at the individual level	Household	Relationship of household head to the elderly	Parents, parents in law, grandparents, other kins, non kin
	Sex	Sex classification	Male, female
	Age	Number of years alive	0-4, 5-9, 10-14, 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-69, 70-74, 75-79, 80-84, 85-89, 90-94, >95
	Education	Last school attended	No education, elementary school, junior high school, high school, university, other
	Place of birth	Location of the place of birth	In this place, elsewhere
	Ethnicity	Ethno-cultural affiliation	Javanese, Sundanese, Madurese, Chinese, Tenggerese
	Religion	Religion affiliation	None, Islam, Catholic, Protestant, Buddhism, Hinduism, Confucianism, other
	Marital status	Present marital status	Single, married, divorced, widow, widower, other

Source: Adapted from Slikkerveer (1990).

Table 3.2 *(continued)* Block 1: Independent Predisposing Factors: Socio-Demographic Factors.

Concept	Variable	Indicator	Category
	Occupation	Current occupation	Farmer, civil servant, private employee, teacher, maid, industrial labor, small traders/retailer, entrepreneur, military/policy, craftsman, retired, unemployed/unpaid, housewife, security, driver, guide, religious leader, student, other
	Employment in family business/ farm	Current employment in family business/ farm	No, yes

Source: Adapted from Slikkerveer (1990).

The psycho-social variables were operationalised in a set of phenomena measured individually by single questions. In the case of the knowledge questions, respondents were asked to demonstrate their knowledge by mentioning four examples of each phenomenon. For instance, they were asked to mention four examples of care and support services provided for the elderly in each elderly care institution or organisation. On the other hand, the belief questions were also operationalised in sets of phenomena asking respondents to indicate their perceived effectiveness or importance for care of the elderly. Their belief in each elderly care institution or organisation was measured by perceived well-being for the elderly. Table 3.3 represents the operationalisation of the concepts of the block of psycho-social factors into variables, indicators, and categories.

Table 3.3 Block 2: Independent Predisposing Factors: Psycho-Social Factors.

Concept	Variable	Indicator	Category
Psycho-social factors at the individual level	Knowledge of existing traditional elderly care institution	Level of knowledge of existing traditional elderly care institution	Do not know, none, very little knowledge, little knowledge, average, much knowledge, very much knowledge
	Knowledge of existing transitional elderly care organisation	Level of knowledge of existing transitional elderly care organisation	Do not know, none, very little knowledge, little knowledge, average, much knowledge, very much knowledge
	Knowledge of existing modern elderly care organisation	Level of knowledge of existing modern elderly care organisation	Do not know, none, very little knowledge, little knowledge, average, much knowledge, very much knowledge
	Belief in traditional elderly care that the institution is good for the elderly's well-being	Level of belief in traditional elderly care that the institution is good for the elderly's well-being	Do not know, none, very little belief, little belief, average, much belief, very much belief
	Belief in transitional elderly care that the organisation is good for the elderly's well-being	Level of belief in transitional elderly care that the organisation is good for the elderly's well-being	Do not know, none, very little belief, little belief, average, much belief, very much belief

Source: Adapted from Slikkerveer (1990).

Table 3.3 *(continued)* Block 2: Independent Predisposing Factors: Psycho-Social Factors.

Concept	Variable	Indicator	Category
	Belief in modern elderly care that the organisation is good for the elderly's well-being	Level of belief in modern elderly care that the organisation is good for the elderly's well-being	Do not know, none, very little belief, little belief, average, much belief, very much belief
	Opinion on care/support of services in the traditional elderly care institution	Level of opinion on care/support of services in the traditional elderly care institution	Do not know, no opinion, very negative opinion, negative opinion, neutral, positive opinion, very positive opinion
	Opinion on care/support of services in the transitional elderly care organisation	Level of opinion on care/support of services in the transitional elderly care organisation	Do not know, no opinion, very negative opinion, negative opinion, neutral, positive opinion, very positive opinion
	Opinion on care/support of services in the modern elderly care organisation	Level of opinion on care/support of services in the modern elderly care organisation	Do not know, no opinion, very negative opinion, negative opinion, neutral, positive opinion, very positive opinion

Source: Adapted from Slikkerveer (1990).

Independent Perceived Needs Variables

According to Coulton & Frost (1982), the perceived need refers to an individual's own judgment about the necessity or benefits of a particular service, and the need assessment is based on a clinical or screening evaluation on an individual's level of impairment in a specific area pertinent to each service. Need factors comprise both subjective perceptions and objective judgments. In this context, the perceived need refers to how the respondents perceive care of the elderly in the plural elderly care system. Calsyn & Winter (2001) state the two most common definitions of service needs used in the previous research for predicting the elderly's service needs, namely perceived and unmet service needs. They define perceived need of care as the need of care regardless of whether people currently receive any services or not, whereas unmet need of care represents only the care which people need, but they are not currently receiving. Moreover, Kizlik (2010) in Saefullah (2019) concludes that the assessment of perceived need comprises a systematic process for determining and addressing gaps between current conditions and desired conditions or 'wants,' or between the 'expected' and the 'perceived'.

Based on those definitions, this research focuses on the definition of perceived need in perceived need of care expressing the respondent's perceptions regardless of whether or not they currently use of care for the elderly. Table 3.4 presents the selection of factors of perceived need of care consisting of financial, socio-cultural, health, emotional, and primary needs.

Table 3.4 Block 3: Independent Perceived Need of Care Factors.

Concept	Variable	Indicator	Category
Perceived need of care factors at the individual level	Perceived need of care in using elderly care institution or organisation	Type of perceived needs of care in using elderly care institution or organisation	Do not know, no perceived need, financial need, socio-cultural need, health need, emotional need, primary need

Source: Adapted from Slikkerveer (1990).

Independent Enabling Variables

According to Coulton & Frost (1982), the enabling factors refer to circumstances or individual characteristics that either hinder or facilitate the use of an appropriate service. Moreover, Calsyn &

Winter (2011) argue that enabling variables include individual resources (*e.g.* income), and family and community resources (*e.g.* social support). In this context, the enabling factors refer to the respondents' socio-economic status which consist of subjective and objective perceptions. The subjective perceptions used the respondents' own opinions or self-assessment of socio-economic status. On the other hand, objective perceptions are measured ownership of material goods such as land and animal ownership, type of house, property values of vehicles and electronic items. Moreover, enabling variables operate on an individual level which refers to the actual condition of the household, *i.e.* the economic aspect. According to Coulton & Frost (1982), financial resources, especially access to payment for health and social services, are usually considered important. Table 3.5 shows the variables in the block of enabling factors: household head income, family income, and Socio-Economic Status (SES).

Table 3.5 Block 4: Independent Enabling Factors.

Concept	Variable	Indicator	Category
Enabling factors at the individual level	Monthly income of the household head	Average amount of the household head's monthly income (in Rupiah)	Do not know, none, 1-1.000.000, 1.001.000-2.000.000, 2.001.000-3.000.000, 3.001.000-4.000.000, >4.001.000
	Monthly income of the household members	Average amount of the household members' monthly income (in Rupiah)	Do not know, none, 1-1.000.000, 1.001.000-2.000.000, 2.001.000-3.000.000, 3.001.000-4.000.000, >4.001.000
	Socio-Economic Status (SES)	Level of SES	Do not know, very poor, poor, average, rich, very rich

Source: Adapted from Slikkerveer (1990).

Independent Institutional Variables

The institutional factors represent the available information about both financial and geographical accessibility of elderly care institutions or organisations which are perceived by the respondent. Financial accessibility refers to service costs of each elderly care institution or organisation. Additionally, geographical accessibility refers to the distance to each elderly care institution or organisation. Institutional factors also consider the financial support received by the respondents in each elderly care institution or organisation, based on the respondent's perceptions. Table 3.6 presents the operationalisation of the block of institutional factors of the types of elderly care institutions or organisations: traditional, transitional and modern.

Table 3.6 Block 5: Independent Institutional Factors.

Concept	Variable	Indicator	Category
Institutional factors at the system level	Accessibility cost of traditional elderly care institutions	Total amount of accessibility cost of traditional elderly care institutions	Do not know, no cost, 1-500.000, 501.000-1.000.000, 1.001.000-1.500.000, 1.501.000-2.000.000, >2.001.000
	Accessibility cost of transitional elderly care organisations	Total amount of accessibility cost of transitional elderly care organisations	Do not know, no cost, 1-500.000, 501.000-1.000.000, 1.001.000-1.500.000, 1.501.000-2.000.000, >2.001.000
	Accessibility cost of modern elderly care organisations	Total amount of accessibility cost of modern elderly care organisations	Do not know, no cost, 1-500.000, 501.000-1.000.000, 1.001.000-1.500.000, 1.501.000-2.000.000, >2.001.000

Table 3.6 *(continued)* Block 5: Independent Institutional Factors.

Concept	Variable	Indicator	Category
	Geographical accessibility of traditional elderly care institutions	Level of geographical accessibility of traditional elderly care institutions	Do not know, none, very difficult, difficult, average, easy, very easy
	Geographical accessibility of transitional elderly care organisations	Level of geographical accessibility of transitional elderly care organisations	Do not know, none, very difficult, difficult, average, easy, very easy
	Geographical accessibility of modern elderly care organisations	Level of geographical accessibility of modern elderly care organisations	Do not know, none, very difficult, difficult, average, easy, very easy
	Financial support from traditional elderly care institutions	Level of financial support received from traditional elderly care institutions	Do not know, none, very little, little, average, much, very much
	Financial support from transitional elderly care organisations	Level of financial support received from transitional elderly care organisations	Do not know, none, very little, little, average, much, very much
	Financial support from modern elderly care organisations	Level of financial support received from modern elderly care organisations	Do not know, none, very little, little, average, much, very much

Source: Adapted from Slikkerveer (1990).

Independent Environmental Variables

The environmental factors give information about the physical location of the household residence *i.e.* rural, semi-urban, or urban. Table 3.7 shows the variable of the environmental location of the residence of the respondents in the research area.

Table 3.7 Block 6: Independent Environmental Factors.

Concept	Variable	Indicator	Category
Environmental factors at the system level	Type of residence	Location of the household	Do not know, rural, semi-urban urban, other

Source: Adapted from Slikkerveer (1990).

Intervening Variables

The intervening factors refer to the characteristics of external interventions at the local community level (*cf.* Saefullah 2019). Aiglsperger (2014) also states that intervening factors operating at the system level change the standard relationship between independent and dependent blocks of factors from outside of the communities. In this context, there are two most powerful players determining the development of a community: (1) the power of the state represented by the government's intervention, and (2) the power of the market represented by the private sector's intervention (*cf.* Saefullah 2019). The intervening factors were operationalised in a set of questions asking for the respondents' perceptions of the impact of interventions from both public and private care towards the utilisation of elderly care institutions or organisations.

As indicated by Slikkerveer (2019c), the intervening variables consist of two main points: the impact of outside public interventions and private forces/interventions. Table 3.8 shows the operationalisation of the concept of the block of intervening factors into variables, indicators, and categories.

Table 3.8 Block 7: Intervening Factors for Government and Private Programmes.

Concept	Variable	Indicator	Category
Intervening factors at the system level	Impact of government regulation on traditional elderly care institutions	Perceived impact of government regulation on traditional elderly care institutions	Do not know, none, very little, little, average, much, very much
	Impact of government regulation on transitional elderly care organisations	Perceived impact of government regulation on transitional elderly care organisations	Do not know, none, very little, little, average, much, very much
	Impact of government regulation on modern elderly care organisations	Perceived impact of government regulation on modern elderly care organisations	Do not know, none, very little, little, average, much, very much
	Impact of private promotion on traditional elderly care institutions	Perceived impact of private promotion on traditional elderly care institutions	Do not know, none, very little, little, average, much, very much
	Impact of private promotion on transitional elderly care organisations	Perceived impact of private promotion on transitional elderly care organisations	Do not know, none, very little, little, average, much, very much
	Impact of private promotion on modern elderly care organisations	Perceived impact of private promotion on modern elderly care organisations	Do not know, none, very little, little, average, much, very much

Source: Adapted from Slikkerveer (1990).

The Dependent Variables

Tables 3.9, 3.10 and 3.11 represent the main elderly care institutions and organisations reported as utilised during a recall period of 12 months before the research was conducted.

The variable is chosen by the respondents based on their preferences for elderly care institutions and organisations during the last one-year period of time when the household surveys were conducted.

Table 3.9 Block 8 Dependent Variable: Reported Utilisation of Traditional Elderly Care Institutions.

Concept	Variable	Indicator	Category
Dependent factors of the main traditional institution used at individual level	The main traditional institution used as the elderly care institution	The main traditional institution used in the preceding year	Yes, no

Source: Adapted from Slikkerveer (1990).

Table 3.10 Block 9 Dependent Variable: Reported Utilisation of Transitional Elderly Care Organisations.

Concept	Variable	Indicator	Category
Dependent factors of the main transitional organisation used at individual level	The main transitional organisation used as the elderly care organisation	The main transitional organisation used in the preceding year	Yes, no

Source: Adapted from Slikkerveer (1990).

Table 3.11 Block 10 Dependent Variable: Reported Utilisation of Modern Elderly Care Organisations.

Concept	Variable	Indicator	Category
Dependent factors of the main modern organisation used at individual level	The main modern organisation used as the elderly care organisation	The main modern organisation used in the preceding year	Yes, no

Source: Adapted from Slikkerveer (1990).

3.2 Selection of the Research Area in East Java

3.2.1 Selection of the Tenggerese Sample Villages

The research focuses on the island of Java [3.2], especially on the Javanese population. The Javanese people are concentrated in Central and East Java (*cf.* Suryadinata 1988, www.britannica.com). Hefner (1990:5) concludes that: '*when we speak of Javanese culture, we think of inland Central Java, heir to the richly refined and hierarchical traditions of the native courts (kraton) that ruled much of the island from the seventeenth to nineteenth centuries.'* However, Javanese culture is not only concentrated in Central Java but also in East Java. This research focuses on the Javanese population of East Java, particularly in the Tengger Region which is also a part of the Javanese ethno-cultural group. The Tenggerese people have certain traditions which are not distinct from the Javanese people. The Tenggerese people have been selected for this research because they still maintain and practise their culture. As the other Javanese people in this region, they call themselves *wong Jawa* ('Javanese people'). Hefner (1985:6) states that: '*Only on certain occasions do they qualify that identification by also referring to themselves as Tengger people (wong Tengger).*' Thus, Tenggerese people are also Javanese. The Tenggerese have certain traditions which they still maintain, carry out, believe, and practise in their daily life. The research tries to document and explain in particular the role of the local traditions of *bakti* and *sayan* in the care of the elderly among the Tenggerese people.
Moreover, this research analyses the pattern of care and support services behaviour for the elderly from the adult child's perspectives. This analysis aims to know the preference of adult children towards the elderly care institutions and organisations.

The Tenggerese people live in the Tenggerese highlands located to the south of the port towns of Pasuruan and Probolinggo, to the east of Malang and west of Lumajang. The Tenggerese highlands are one of twelve mountain complexes, consisting of 120 mountains that form the east-west backbone of the island (*cf.* Hefner 1990). It shows that the Tenggerese highlands form a vast mountain wedge. The Tenggerese people live in the region of the Tenggerese Mountains which is divided into four administrative districts: Malang district in the south-west, Lumajang district in the south-east, Pasuruan district in the north-west, and Probolinggo districts in the north-east.

The research focuses in particular on the Tenggerese people living in two districts: Malang and Lumajang. Both districts are chosen because of the considerations after concluding the preliminary research. They have not been too much affected by outside factors [3.3]. The outside factors may come from the government's involvement and tourism's impact. It can be seen from the percentage of domestic and foreign visitors who visit Mount Bromo as the tourist destination surrounded by those districts. It can be assumed that the increasing number of visiting tourists can affect the local people's lifestyle. For example, the local people of the Tengger Region will tend to have more than one job: as a farmer and tourist guide, or renting out a vehicle to tourists. Moreover, it can also affect the neighbourhood and local people's behaviour. For example, local people supported by the local government have an initiative to provide hostel rooms or temporary housing for tourists. It can affect the local people's behaviour and mindset in the future. In addition, the Tenggerese highlands are surrounded by two *tlatah* ('cultural areas'): *Arek* and *Pendalungan* [3.4]. In this research, the Malang district represents the *Arek* cultural areas and Lumajang district represents the *Pendalungan* cultural areas.

Each district has sub-districts consisting of villages. In this research, the researcher chose a village which represents where Tenggerese people live, namely Ngadas village, Poncokusumo sub-district, Malang district, and Argosari village, Senduro sub-district, Lumajang district. Both villages implement the Tenggerese traditions in their daily life, livelihoods, religion, belief, social life, and environment. In this context, the researcher will document and explain the pattern of care of the elderly particularly focusing on the knowledge and practice of the local traditions of *bakti* and *sayan* within the Tenggerese community. A more detailed explanation of the Tenggerese people and traditions will be explained in Chapter VI.

The research was conducted not only among the Tenggerese people but also among the Javanese people, with the objective to describe the pattern of care of the elderly in East Java in general. The research includes two urban villages which represent the Javanese people, namely Tlogomas urban village, Lowokwaru sub-district, Malang district, and Ditotrunan urban village, Lumajang sub-district, Lumajang district. Both urban villages in those sub-districts were chosen because they have *Panti Jompo* owned by the government and supervised by *Dinas Sosial* ('the Ministry of Social Affairs'). In a nutshell, this research investigates Javanese ethno-cultural groups represented by two urban villages, and Tenggerese ethno-cultural groups represented by two villages as the Tenggerese are part of the Javanese ethno-cultural groups in East Java.

In this research, there are three types of elderly care institutions as components of the plural elderly care system consisting of traditional institutions, and transitional and modern elderly care organisations. The traditional elderly care institutions refer to family home care, while the transitional elderly care organisations refer to community-based care, and modern elderly care organisations refer to *Panti Jompo* and *Pusat Kesehatan Masyarakat Santun Lansia* (*Puskesmas Santun Lansia*). The present study also seeks to document and analyse the reported patterns of utilisation behaviour from the adult childrens's perspectives which dominates the influence on their preferences for the elderly care.

3.2.2 Target Population and Sample Surveys

The questionnaire instrument was firstly introduced by Slikkerveer (1990) and used in several types of research related to applied ethnoscience and development studies. To achieve the objectives of this research, the questionnaire required several adaptations to the present research in East Java and was finalised in May 2018. Once the questionnaire was ready to be distributed, the fieldwork has been conducted in the selected villages from June to August 2018.

After selecting the research area, the next step has been to choose respondents for the survey. The unit of analysis for this research is the adult person as the household head who has elderly people as parents. Another criterion is that these adults provide care for their elderly parents or older people. This study has tried to collect information on individual households rather than on communities at large. The questionnaire was distributed to the household head in each research area meeting the selection criteria. In this context, the household head is the adult child who is married or unmarried, and still has parents or older people to care for. The elderly refer to the criteria of the older person in Indonesia, who is 60 years old, or older. This definition is based on Law No. 13/1998 about elderly wellfare. The data collected for the household members are also related to the socio-demographic block of factors.

Most of the household heads are men. As the head of a household, the man as a husband has the role as a decision-maker in the household. In some cases where the husband in the household has passed away, the wife takes the responsibility as the decision-maker including fulfilling household needs. However, if the wife (widow) is not able to meet all of the household members' needs, the adult children - commonly men - can take over her position as the decision-maker. In another case when parents reside with an adult child, it is not always clear whether the parents or the adult child is the actual household head. The parent may be the household head even when the adult child is the primary breadwinner and manager of the household (*cf.* Rudkin 1992). The researcher needs to get more information about the survey's sample from the *Kepala desa* ('Heads of the villages') and *Ketua Rukun*

Tetangga/Rukun Warga (‘Heads of the neighbourhoods’s). To ensure the survey’s sample meets the research criteria, the researcher asked the respondents directly to see their *Kartu Tanda Penduduk* (KTP) (‘resident’s identity card’) and *Kartu Keluarga* (KK) (‘family card’) for the household. It is important to note that the household head in this research is an adult child or adult person who lives with/near and takes care of their parents or older people.

The research also requires some specific criteria to select the survey respondents. An adult person was considered a household head if s/he: (1) lives in the same house with elderly under *satu atap* (‘one roof’) or near their elderly’s home, (2) eats from the same kitchen with elderly even if they live in another house (adult children and the elderly sleep in their own house), (3) eats from a different kitchen (*bedo pawon*) at the same house with the elderly, and (4) contributes to and is responsible financially or materially for the household needs. In this context, the researcher defines the type of care of the elderly provided by an adult child into three types: the first type is the adult child and their family living in his parents’ home or bringing the parents to his home to take care of them; the second type refers to the adult child taking care of their aged parents by living nearby their parents’ home; and the last type is the elderly who live separately from their children.

Methods of non-probability sampling are applied in the present research for some reasons. These techniques not require the complete 'sampling frame' in the population, and every unit of the population does not get an equal chance to participate in the survey (*cf.* Ferdinand 2014). More specifically, the type of non-probability sampling that was used is the purposive sampling method. It is chosen based on specific considerations to obtain samples which meet the criteria determined by the researcher. Purposive sampling relies on the subjective judgment of the researcher. Moreover, the main goal of purposive sampling is to focus on particular characteristics of a population of interest, in the hope that it can provide answers to the predetermined research questions.

3.3 Data Collection and Analysis

3.3.1 Qualitative Data Collection

The qualitative research methods were conducted to obtain data and in-depth information about both individuals and communities. The qualitative research tools have been designed to collect in-depth data on the patterns of individuals’ behaviour, knowledge, and beliefs. Moreover, qualitative research is also a way to find out more about the communities’ cosmovision in the research area. Qualitative research was carried out in the form of field observations, documentation, and formal and informal interviews with key informants and participants preceding the household surveys. In this context, the qualitative methods were used to accurately capture the actual behaviour, beliefs, and opinions of the adult person or child in providing care of the elderly.

The researcher lived temporarily with the research team in the villages where the qualitative fieldwork was carried out. It started with observations and attending relevant meetings and activities in each village. The team participated in social gatherings to understand the research settings and build up a rapport with the local people. It started with the introduction to explain the research and asked the cooperation and permission to interview and observe the participants in their daily life. After permission, appointments were made with the respondents, and the interviews started.

The interviews involved open-ended questions related to the following topics: (1) daily observations including one-day activities related to preparing everything for the elderly; (2) arrangements covering care of the elderly which focus on knowledge, belief, and practice of care; (3) utilisation behaviour referring to the context of care providers in old age with a focus on livelihood strategies to secure well-being in old age. The researcher made a list of questions for the respondents on the care of the elderly. After completion, the researcher and her team documented the answers of the participants. This qualitative method explored the participants’ emic view. In addition, key informants were interviewed to get information about their general activities and specific programmess for care of the elderly. The key informants included the *Kepala Desa* or *Kades* (‘Village Heads’), the *Ketua RT/RW* (‘Neighbourhood Heads’), and the officials in the sub-district of the local government clinic, called

Puskesmas (‘Primary Health Care Centre’), the officials in the village of the local government clinic, called *Puskesmas pembantu* or *Pustu* (‘Auxiliary Health Centre’), the officials of the Health Department, called *Dinas Kesehatan* or *Dinkes,* and the officials of the Social Department, called *Dinas Sosial* or *Dinsos* at the *Kantor Kabupaten* (‘District Office’). Moreover, the managers of *Panti Jompo Pemerintah* (‘Government Old Age Homes’) and the *Panti Jompo Swasta* (‘Private Old-Age Homes’) were also grouped as key informants.

Additionally, the researchers also interviewed other key informants such as *Kepala Adat* and *Kepala Dukun* as selected experts in the Tenggerese culture. They were interviewed mainly about traditional behaviour and culture on care of the elderly. The qualitative fieldwork tried to shed light on the patterns found in the survey to provide more in-depth information about it. In addition, qualitative data also have been collected from various documents which have been used as research material. These documents include any record of texts, digital sources, and images. The researchers also made photographs to record observation settings in research areas.

3.3.2 Quantitative Data Collection: Household Survey

Quantitative methods were used to accurately measure care practices, support providers, and old-age security from the perspective of an adult child or other person through a survey questionnaire. Based on this questionnaire, the researcher will know the respondents’ preferences of utilising elderly care institutions and organisations. In the beginning, for the quantitative fieldwork, a questionnaire was drawn up in English. Thereafter, the researcher translated the questions in the questionnaire into Indonesian. During the questionnaire distribution, the researcher was helped by some interviewers. They were carefully recruited and tested on the basis of criteria, such as experience and more importantly Javanese speaking skills. Understanding Javanese is important because most of the people in the research areas, particularly in Tengger, speak Javanese daily [3.5]. Consequently, interviewers speak better Javanese than Indonesian with the Tenggerese respondents. Similarly, Wibisono (1956) in Smith-Hefner (1983) reports that interviewing the Tenggerese in Javanese can show better results than those conducted in Indonesian. According to Poedjosoedarmo (1968), speech levels in Javanese show two aspects: the degree of formality and respect between speakers and addressees [3.6]. Based on Javanese speech levels, traditionally, Tenggerese people use the same language level when speaking within the community. Most people usually speak a Tenggerese variant of ‘*ngoko.’* However, they also speak ‘*kromo*’ in some formal occasions or when they speak to older people (*cf.* Hefner 1985). The study of Hefner (1990:3) about Tenggerese also concludes that: ‘..... ‘*kromo*’ *was used to address outsiders, which is to say, to speak with people who did not understand the more direct and solidary ways of upland Java*.’ In the beginning, the interviewers try to understand the Javanese speech level used by the respondents through a short conversation prior to interviewing based on the questionnaire. It is implemented in a way to ease communication and feel a sense of familiarity when interacting with each other.

In practice, some of the people who cannot read asked the interviewers to read the questions in the questionnaire one by one, but for those who can read, they also preferred that the questionnaire was read by the interviewer for them to easily understand the questionnaire. On the contrary, those in urban areas representing the Javanese filled out their questionnaires themselves. However, sometimes some respondents asked the interviewers to read the questionnaire and help them write the answers. In practice, interviewers could speak Indonesian and sometimes Javanese depending on the respondents’ responses when filling out the questionnaire. Thereafter, the interviewers had to check each questionnaire and report the result and important findings during the field work. The research team discussed the results and target of the interviews every day. Last but not least, the research team also shared the problems encountered and any interesting stories during the fieldwork.

The survey used questionnaire and face-to-face interview methods. The questionnaire was prepared with some structured answer categories aimed to facilitate the respondents to fill in the questionnaire. The questionnaire consists of two parts: the first part is related to the survey of the household head as the respondent, consisting of questions about socio-demographic, psychosocial, perceived needs,

enabling, institutional, environmental, and intervening variables, and the utilisation of the elderly care institution; the second part is the data of the respondent's household members, particularly in the socio-demographic variables. The household members can fill in the questionnaire for the socio-demographic variables themselves. In fact, the interviewer found it difficult to directly meet and interview each household member because they have different activities. The household head can help to fill the questionnaire specifically on the socio-demographic variables for the household members when only the household head knows the information. Related to the socio-economic variables referring to the enabling variable, the questionnaire also requires the average amount of income to be filled in, not only for the household head but also for all the household members. Meanwhile, dependent variables indicate the main utilisation of elderly care and organisations reported by the household head as a respondent during the last one-year period when the research was conducted.

3.3.3 Quantitative Data Analysis

Data have been collected through both qualitative methods by observations and interviews, and quantitative methods through the household surveys. The quantitative data have been collected from the structured questionnaires following the conceptual model developed for this research. To execute the stepwise statistical data, the research analysis encompasses bivariate analysis, mutual correlations analysis, multivariate analysis, and multiple regression analysis.
The bivariate analysis is the first analysis stage where the independent and intervening variables are distributed over the dependent variables through cross-tabulation. The bivariate analyses examine whether one variable relates to another and more specifically indicate the shape, direction, or strength of the relationship (*cf.* Weinberg & Abramowitz 2002). It measures the relationship between two variables and does not allow for any indication of the causality (*cf.* Field 2009). The results of the bivariate analyses used in this research need to meet the following criteria (*cf.* Leurs 2010; Saefullah 2019):

- the observed counts and percentages of the cross-tabulation;

- the values of Pearson's Chi-square (χ^2) with the statistical critical measures; and

- the corresponding measures of association in Cramer's V with the statistical critical measures.

The cross-tabulation technique is used to establish whether the differences in the sample cross-tabulation represent the real differences in the population as a whole. Pearson's Chi-square test of independence determines whether there is a statistically significant relationship between two variables (*cf.* Miller *et al*. 2002). The confidence level for this study is set at 95%, meaning that if the significance level is less than 0.05 (< 0.05), it is significant. On the contrary, if the significance level is more than 0.05 (> 0.05), it means it is insignificant. Table 3.12 presents the range of significant values and its interpretation of significance. The researcher used the rules introduced by Agung (2005), Leurs (2010), Djen Amar (2010), Ambaretnani (2012), Chirangi (2013), Aiglsperger (2014), Erwina (2019), Saefullah (2019), and De Bekker (2020). The significance values of Pearson's chi-square test are arranged along the scale as illustrated in Table 3.12:

Table 3.12 Range of Significant Values and Interpretation of Significance.

Level of Significant Value (χ^2)	Interpretation of Value
$\chi^2 > 0.15$	non-significant
$0.15 > \chi^2 > 0.10$	indication of significance
$0.10 > \chi^2 > 0.05$	weakly significant
$0.05 > \chi^2 > 0.01$	strongly significant
$0.01 > \chi^2 > 0.001$	very strongly significant
$\chi^2 < 0.001$	most strongly significant

Pearson's Chi-square is considered suitable categorical data, which are by definition not continuous. Although Pearson's Chi-square does not rely on such assumptions as having continuously normal distributed data like most statistical tests, two important assumptions must always be fulfilled. *Firstly*, each respondent can score only in one cell of the cross-tabulation. *Secondly*, no expected frequencies should be below 1 and no more than 20% of expected frequencies should be below 5. On the basis of Pearson's chi-square test, the strength of each significant association among variables is further explored with Cramer's V.

Absolute values of Cramer's V range between 0 and 1, with 0 representing no association and 1 a perfect association (*cf.* Field 2009). The mutual correlations analysis is applied in this study encompassing an overview of all the significant variables resulting from the bivariate analysis. Slikkerveer (2019c:207) introduces: '*a mutual relation analysis by clustering all those variables which are showing a differential degree of significance, ranging from 'indication of significance' to 'most strongly significant', into the pre-determined categories concerned, as represented as 'blocks' in the analytical model*.' In a recent article, Slikkerveer (2016) adapted his ethnomedical data analysis by replacing the 'mutual relations analysis' by the 'mutual correlation anaysis' in his analytical model of transcultural health care utilization, encapsulating the overview of significant correlations on the basis of the calculated Pearson's Chi-Square ($\chi 2$) within the range of significance between $0.15 > \chi^2 > 0.10$ and $\chi^2 < 0.001$ (*cf.* Table 3.12).

By consequence, the mutual correlations analysis shows the results from the bivariate analysis of all significant variables represented by each 'block' in the analytical model. In this context, it shows what factors significantly influence people's utilisation behaviour in choosing a traditional elderly care institution in comparison with the transitional and the modern organisations.

As an extension to the bivariate techniques of statistical data analysis, strengthened by the mutual correlations analysis, a multivariate analysis is applied to the present research. Multivariate analysis provides multiple independent and dependent variables (*cf.* Tabachnick & Fidell 1989). This study uses three dependent variables; therefore, the design of variables is multivariate. The multivariate analysis measures the relationships between the independent variables and the responses of the dependent variables, and the relationships between the multiple dependent variables. The multivariate analysis focuses on the interrelationships and interactions among all variables identified in the analytical model. By using multivariate analysis techniques, it is possible to determine which variables have the strongest impact on the interrelationship of the variables.

The classical multivariate analysis assumes that each variable has *a priori* quantification and can be treated as numerical data (*cf.* Geer 1993). However, although some variables can be considered (quasi) interval data, treating all data numerically would have been an oversimplification of the complexity of this dataset. The non-linear multivariate analysis, which does not have the same *a priori* assumption of the classical multivariate analysis, is the appropriate analysis to use. Following the example of Agung (2005), Ibui (2007), Leurs (2010), Djen Amar (2010), Ambaretnani (2012), Chirangi (2013), Aiglsperger (2014), Erwina (2019), Saefullah (2019), and De Bekker (2020), the OVERALS analysis is also implemented in this study. The OVERALS analysis is a non-linear generalised canonical correlation analysis (*cf.* Geer 1993), which allows the inclusion of variables with different measurement levels, including those with nominal and ordinal levels. Several scale types can be handled by the OVERALS technique. In this study, the set of independent and intervening variables form the first set while the dependent variables form the second set.

The general purpose of Multiple Regression Analysis is to delve more deeply into the relationship between several independent or predictor variables and a dependent or criterion variable. A Multiple Regression Analysis was used based on the individual OVERALS analyses between each block of variables and all other blocks of variables in the model. In a nutshell, while bivariate and multivariate analyses illustrate the relationship between different variables in the model, multiple regression analysis seeks to calculate the maximum correlation between blocks of variables (*cf.* Leurs 2010; Aiglsperger 2014; Saefullah 2019). Specific Multiple Regression Analysis was used here to calculate the relative importance of the block of variables and the block of dependent variables. It compares the various blocks of variables in the model to determine the relative strength of interaction. The multiple

regression analysis estimates the significance of the final model of utilisation behaviour which is expressed by a multiple correlation coefficient (r). In this analysis, the multiple correlation coefficients (ρd) of the individual OVERALS analyses will be used to measure the association.

The most commonly used multivariate measures of association can be expressed as functions of the 'eigenvalues' of the product matrix. The formula used to calculate the multiple correlation coefficient (ρd) using the 'eigenvalue' (Ed) is ρd = 2 x Ed-1 (*cf.* Van der Burg 1988).

The approach to the Multiple Regression Analysis follows the pre-defined block of factors presented in the multivariate model. This model was first introduced by Slikkerveer (1990) and later implemented in different studies of applied ethnoscience as mentioned above. Moreover, this model widens the cultural perspectives and permits the assessment of the cognitive and behavioural components of particular groups or communities as 'systems' in a rather holistic mode. Hence, it will generate a value relation towards policy making. The Multiple Regression Analysis of the blocks of factors gives an indication of which aspects should be developed for policies and at which point policies should be concentrated in order to heighten the probability of positively affecting the intended change in the behaviour of the community. Moreover, statistical data analysis aims at elaborating the final model of the utilisation of the elderly care institutions and organisations in the research area. The results obtained from quantitative data analysis are strengthened by the information gathered from the qualitative discussions, interviews and related explanations.

Notes:

[3.1] Measurement scales are used to categorise and/or quantify variables' values. In general, four scales of measurement are used in statistical analysis: nominal, ordinal, interval, and ratio scales (*cf.* Slikkerveer 2019c). *Nominal scales* refer to two or more named categories (classes) which are qualitatively different from each other, such as the variable 'marital status': single, married, divorced, and widowed.
Ordinal scales refer to two or more named categories (classes) which are qualitatively different from each other, but have an additional quality in a rank order or ladder, such as the variable 'socio-economic class': poor, average, and well-to-do. Interval scales refer to two or more named categories (classes) which are qualitatively different from each other, but have an additional quality where the intervals between the classes are equal, such as the variable 'temperature,' measured in degrees Celsius, where the difference between 20° and 25° is the same as between 32° and 37°C.
Ratio scales refer to two or more named categories (classes) which are qualitatively different from each other, but have an additional quality where zero indicates the absence of the attribute, rendering the ratio between numbers in the scale similar to that between the amounts of the attributes under measurement, such as the variable: 'income' measured in dollars, euros, pounds, etc.

[3.2] Administratively, Java is composed of four provinces: *Jawa Barat* (*'*West Java'), *Jawa Tengah* (*'*Central Java'), *Jawa Timur* (*'*East Java') and *Banten*; and two special regions, namely *daerah khusus lbukota* (Jakarta) and *Daerah Istimewa* (Yogyakarta) (*cf.* www.Britannica.com; www. wikipedia.org).

[3.3] Ngadisari village represents the Tenggerese people living in the Probolinggo district. Based on the preliminary research conducted by the researcher, Ngadisari is the centre of Tenggerese tourism area. Many tourists visit Mount Bromo. Many villagers have reaped economic benefits from tourism such as renting minibuses, jeeps, etc. Moreover, many villagers own horses which they rent to tourists who prefer to ride a horse than walk up the steep incline. On the other hand, other villagers built and rented some homestays to tourists and some villagers act as guides (*cf.* Smith-Hefner 1983). Tosari village in the Pasuruan district also has the same characteristics as the Probolinggo district.

[3.4] East Java is divided into ten *Tlatah* or cultural areas. There are four big cultures, *i.e.* Mataraman, Arek, Madura Island, Pendalungan, and six small cultures, *i.e.* Jawa Panaragan, Osing, Tengger, Madura Bawean, Madura Kangean, and Samin (*cf.* Ekaraga *et al*. 2018; Lukiyanto 2016). Malang and Surabaya are the centre of the Arek tlatah. Pendalungan includes the Madura and Jawa cultures. The Pendalungan tlatah includes Pasuruan, Probolinggo, Situbondo, Bondowoso, Lumajang, and Jember.

[3.5] The Javanese are not synonymous with the standard Javanese of Central Java. The Javanese includes both standard and regional (non-standard) dialect(s) of the Javanese. The Tenggerese dialect is one of several non-standard, regional varieties of Javanese (*cf.* Smith-Hefner 1983); thus the Tenggerese people speak Javanese in the dialect of the Tenggerese people.

[3.6] There are three vocabulary types in the Javanese speech level. First, *Ngoko* expresses non-polite and informal speech. The *Ngoko* vocabularies are used only to address someone with whom the speaker is very familiar. Second, *Madyo* expresses semi-polite and semi-formal speech. *Madyo* words are used to address a person towards whom one must express a formality of intermediate degree, such as a neighbor who is not a close friend or sometimes a relative of an older generation. Third, *Kromo* expresses politeness and formality. *Kromo* words are used to address someone towards whom the speaker must be distant and formal (*cf.* Poedjosoedarmo 1968).