Validity and Reliability of the Instrument in Measuring the Identity of Hindu Saivites through Beliefs and Religious Practices

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Abstract
Malaysia is a unique country that consists of various races with different religious and cultural backgrounds. In maintaining national harmony, knowing and understanding the cultures and religions of other races is important. As is well known, Hinduism is one of the minority religions practiced by Malaysians, particularly the Indian community. However, few people are aware that in Hinduism there are also several sects. This study is conducted to understand the identity of the Hindu religious sect that is practiced by the majority of the Malaysian Hindu community, namely Saivism, through beliefs and religious practices. Thus, an instrument for measuring the identity of Hindu Saivites through beliefs and religious practices has been developed. A pilot study was conducted involving 50 respondents consisting of Hindu Saivites in Klang Valley. The reliability value of Cronbach's alpha on the constructed instrument is 0.88. Such reliability value indicates that the constructed instrument may measure the beliefs and religious practices of the Hindu Saivites as well as their relationship to identity.
Keywords: Reliability, Validity, Hindu Saivites' Identity, Beliefs, Religious Practices.

Introduction
Malaysia is made up of various races from different religious and cultural backgrounds. The religion in Malaysia consists of Islam which is the majority, recorded at 63.5%, followed by Buddhism at 18.7%, Christianity at 9.1%, Hindu at 6.1%, others at 0.9%, and unknown or no religion at 1.8% (Department of Statistics Malaysia, 2022). The diverse state of Malaysian people demands it society to know and understand the religions and cultures of other races in ensuring that national harmony can be sustained. Even though Malaysian society has been diverse for a long time and has been more apparent since independence, not everyone in Malaysia knows and understands the religion and culture of other races, particularly minority religions. Therefore, it is not surprising that there are sometimes racial conflicts over religious

matters, specifically when there are issues of insulting and disrespecting other religious communities.

This study focuses on the Hindu religion practiced by the majority of the Indian community. Even though the Malaysian community is aware of the presence of Hinduism in Malaysia, few may know that this religion also consists of several sects where there are some differences in terms of beliefs and religious practices. Although there have been earlier studies on Hinduism in Malaysia, from the researcher's observation, there is still a lack of specialization in the sects present within this religion. Thus, this study examines the sect that is the majority of Hindus in Malaysia, namely Saivism, by focusing on their identity through beliefs and religious practices. Thus, an instrument for measuring the identity of Hindu Saivites through beliefs and religious practices was developed. The main objective of this study is to examine the validity and reliability of the questionnaire in measuring the Hindu Saivites' identity through beliefs and religious practices.

Methodology
This study applied a quantitative approach by using an instrument of questionnaire. The instrument for measuring the identity of the Hindu Saivites community through beliefs and religious practices was developed by the researcher. For the questionnaire, each construct and item developed to form the instrument are based on the theoretical and conceptual framework, previous literature as well as a reference to experts within the field of Saivism. The questionnaire consists of four sections, (A) demography; (B) beliefs of Saivism; (C) religious practices of Saivism; (D) Saivites' religious identity. The three constructs of beliefs of Saivism, religious practices of Saivism, and the Saivites' religious identity contain a total of 83 items. The measurement scale used in this questionnaire is a Likert scale where each item is measured with 5 scales namely (1) strongly disagree; (2) disagree; (3) neutral; (4) agree; (5) strongly agree.

Research Procedure
The study went through several stages. The first stage was to develop a questionnaire instrument through a theoretical and conceptual framework, past studies, and also pre-interviews with experts. After that, the questionnaire developed by the researcher went through a process of validity and reliability.

Face and Content Validity
Validity refers to the ability of an instrument to test or measure what is supposed to be measured (Lynn, 1986; Ghazali and Sufean, 2018). There are several important forms of validity used in the study, and this study used face and content validity. Face validity, as mentioned by Ananda (2009), refers to several experts in his field who have been appointed to ensure that the constructed items accurately represent the measured constructions, such as the accuracy of language use, the spelling of sentence phrases, and so on. This validity is necessary for verifying that the item is clear, that the questions are asked in a reasonable amount of time, and that the item measures what should be measured (Arasinah et al., 2012). Furthermore, it assists researchers in identifying the likelihood of questions being misunderstood or misinterpreted early on (Zainuddin, 2015).

The number of experts required for face validity is not specifically determined, and previous studies have employed three, six, seven, and twelve experts (Aldridge and Galos 2017; Evers et al., 2017; Norhisham et al., 2017; Nuradli, 2019). According to Lynn (1986), the minimum number of experts for validation is three. For the face validity of this questionnaire instrument, it involved three experts consisting of an honorary professor from the Institute of Ethnic Studies and two Saivism religious experts. Both of the religious experts in Saivism are committee members of Saivism-based religious organizations. The selection criteria for experts are based on their areas of expertise in the field of ethnic social studies and also the Hindu religion of Saivism. Item evaluation was made on each item in the questionnaire in terms of appropriateness of the format of the instrument, clarity of the meaning of each item, use of easy-to-understand language, appropriateness of font size, clarity of instructions given, clarity of instrument objectives, and clarity of indicators for scale. Table 1.0 below shows a list of experts for face validity.

Table 1.0
List of Face Validation Experts

No.	Experts	Area of Expertise
1	Prof. A	Social, Ethnic Study
2	Dr. B	Hindu Saivism
3	Mrs. C	Hindu Saivism

In addition to face validity, content validity was employed to see how representative the items in the instrument were, of all elements evaluated as well as those that corresponded to the subject of the field of research wanted to be studied (Ananda, 2009). When it comes to a sample of items, content validity is important since it determines if they provide a sufficient operational definition of a construct (Polit and Beck, 2006). As for the number of experts used for content validity, it differs among the researchers. Some past researchers employed eight experts (Zhu et al., 2015), 13 experts (Wesolowski et al., 2017), and 16 experts (Kim, 2011). According to Lynn (1986), the number of experts necessary for research is adequate at five to ten. On the other hand, Lawshe (1975) recommends at least four expert panels. For this study, four experts were involved in content validity in which three comparable experts for the face validity test, and another expert who is a lecturer at the Research Center for Theology and Philosophy and also serves as the Deputy Dean of Research and Innovation. Table 2.0 below shows the list of experts for content validity.

Table 2.0
List of Content Validation Experts

No.	Experts	Area of Expertise
1	Prof. A	Social, Ethnic Study
2	Dr. B	Hindu Saivism
3	Mrs. C	Hindu Saivism
4	Dr. D	Theology & Philosophy

Reliability of the Instrument
The reliability of an instrument in research describes the extent to which the scores in each item obtained in the questionnaire instrument are consistent or stable when used repeatedly (Ghazali and Sufean, 2018). The reliability of an instrument, in quantitative studies especially for the use of questionnaires, is attained by testing a group of questions (questionnaire)

through a small-scale test known as a pilot test (Pratt, 1980). For this research, a pilot study was conducted involving the adherents of Saivism in the Klang Valley. The selection of a sample of respondents for the pilot study has met the same characteristics as the actual sample of the study. A total of 50 respondents who are followers of the religion of Saivism answered the questionnaire distributed through the online google form. The practice method of distributing the questionnaire online by applying google forms is used due to a pandemic situation of Covid-19 that occurs where it is difficult for researchers to face the respondents due to safety factors. As for the number of respondents, 50 people is adequate for the pilot study sample. As Johanson and Brooks (2010) suggested a minimum number of 30 people for a pilot study is enough for validity and reliability for an initial study, Mohd Yusri (2017) recommends that 30 to 50 respondents are suitable and ideal for the pilot study. To obtain the reliability of the questionnaire instrument, the data obtained from the pilot study were analyzed using Statistical Package for the Social Sciences software (SPSS). Generally, the reliability of a questionnaire instrument is measured by obtaining the value of Cronbach's alpha coefficient when the measurement scale for the questionnaire item has several options such as the Likert scale (Bolarinwa, 2015).

Results

The results of the reliability test using Cronbach's alpha internal consistency method are shown in the tables below.

Table 3.0
Cronbach's Alpha for Construct of Beliefs of Saivism

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I believe that there are three realities, namely, *Pati* (Lord of Siva), *pasu* (soul) and *pasa* (the bondages which become the hindrance to the soul).	193.42	105.718	.000	.756
I believe that these three realities are regarded as real.	193.42	105.718	.000	.756
I believe that these three realities eternally exist without a beginning and ending.	193.42	105.718	.000	.756
I believe that *Pati* is independent with inherent and complete knowledge.	193.56	106.864	-.121	.763
I believe that *pasu* is dependent on *Pati*, and it has limited knowledge and has to be given (taught to acquire) the knowledge.	193.56	102.129	.263	.751
I believe that *pasa* is inanimate, having no knowledge and feeling.	193.80	100.245	.203	.753
I believe that *Pati* is unaffected by the imperfection of *pasu* because He is independent and perfect.	193.72	101.961	.160	.755

I believe that Siva is the highest supreme God.	193.50	106.296	-.077	.761
I believe that God Siva is the source of life and all existence.	193.42	105.718	.000	.756
I believe that God Siva is the creator, preserver, and destroyer of all that exists.	193.42	105.718	.000	.756
I believe that God is one and His inherent form cannot be completely conveyed by words.	193.54	103.804	.225	.753
I believe that God manifests Himself in various forms (rupa).	193.50	104.990	.088	.756
I believe that the form of the statue of God in Saivism is a symbol that carries a deep meaning about the manifestation of God.	193.48	105.234	.087	.756
I believe that the various manifestations of God as Devi, Ganesha, Shanmuga, and others help to depict the various attributes of God.	193.84	97.443	.372	.744
To emphasize the fact that all forms are the manifestations of the one and only one God, terms of relationship like wife, son, and mother are used.	193.90	100.296	.229	.752
I believe in God Ganesha/Vinayagar, son of Siva-Shakti, to whom I must first supplicate before beginning worship.	195.94	92.507	.325	.749
I believe in God Ganesha/Vinayagar, son of Siva-Shakti, to whom I must first supplicate before beginning any task.	196.04	93.141	.312	.750
I believe in Karttikeya/Murugan, son of *Siva-Shakti,* who as well as his vel of grace removes the internal and external challenges.	195.44	89.435	.431	.739
I believe in Karttikeya/Murugan, son of *Siva-Shakti,* who as well as his vel of grace dissolves the bondage of ignorance.	195.52	86.581	.542	.729
I believe that the *pasu* (soul) is constantly hindered by the impurities of *pasa*.	193.60	101.714	.327	.749
I believe that the mission of *pasu* (soul) in this life is to become free from *pasa* by God's grace and be blessed to be in the permanent blissful state of a non-dual relationship with God.	193.68	101.732	.206	.752
I believe God and soul are different entities, though both are eternal; God is one; souls are plural.	193.56	102.088	.249	.751

I believe that upon achieving *mukti* (liberation), the soul will be in a non-dual relationship with God in which the soul will unite with God but remain separate.	193.72	99.185	.280	.749
I believe that *pasa* (bondage) consists of three *malas* that are *anava, kanma*, and *maya.*	193.50	102.541	.377	.750
I believe that *anava* is the ego consciousness that entraps the soul to be in a state of ignorance.	193.46	104.090	.393	.753
I believe that souls go through the cycle of birth and death (*samsara*), experiencing the good and bad things, due to their *kanma;* it is when the soul has no more *kanma,* that it will be able to attain liberation (*mukti*).	193.56	101.884	.398	.748
I believe that *maya* indicates a primordial material from which the world and all things in the world are formed.	193.58	104.085	.084	.757
I believe in *kanma*.	193.54	102.417	.229	.752
I believe in *samsara* (the concept of rebirth)	193.46	104.172	.373	.753
I believe in *mukti*.	193.46	104.172	.373	.753
I believe in the four *sathanas* that need to be practised by the soul to achieve final *mukti* or liberation.	193.62	102.036	.291	.750
I believe that *sariyai* is the path of service, where physical worship is more prominent.	193.60	102.286	.275	.751
I believe that the *kiriyai* is the path of ritual devotion, where both physical and mental worship is involved.	193.50	102.622	.432	.749
I believe that *yogam* is a way of self-concentration and meditation; this involves mental worship to a greater extent besides practicing the sariyai and kiriyai.	193.54	102.662	.325	.750
I believe that *nyanam* or knowledge is the path of enlightenment, where one will be fully aware of the underlying meaning and purpose of all happenings.	193.52	103.030	.346	.751
I believe that we can worship God anywhere.	193.58	106.004	-.052	.761

I believe that the temple is the best place to worship God.	194.18	97.253	.307	.748
I believe that temple enables us to feel the existence of God.	193.94	95.282	.486	.738
I believe the *Panchakshara Mantra*, "*Namasivâya*" to be Saivism's most important mantra.	193.46	105.274	.063	.756
I believe that each syllable of "*Namasivâya*" has a distinct meaning.	193.42	105.718	.000	.756
I believe that Na denotes the Lord's concealing grace, Ma denotes the *mala*, Si is for Siva, Vâ is His revealing grace, and Ya is the soul.	193.50	102.337	.474	.749
I believe that the five syllables (Na, Ma, Si, Vâ, Ya) represent the five elements.	194.06	96.139	.283	.750
I believe that Na is earth, Ma is water, Si is fire, Vâ is air, Ya is ether or akasa.	194.16	93.851	.377	.743

Cronbach's Alpha	N of Items
.756	43

Table 3.0 shows the result that Cronbach's alpha for the highest item if deleted in the construct of beliefs of Saivism is 0.763 on the item 'I believe that Pati is independent with inherent and complete knowledge'. However, the researcher retained the item since it is important to know the level of belief of Saivism adherents towards the nature of God which is the essence of their religion. After all, it does not give too much effect to the value of Cronbach's alpha if it is not discarded, for which the overall value of Cronbach's alpha for the construct of beliefs of Saivism is 0.756.

Table 4.0
Cronbach's Alpha for Construct of Religious Practices of Saivism

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I perform daily worship (puja) at home.	95.92	161.055	.405	.827
I perform daily worship (puja) at the temple.	98.12	149.128	.550	.818
I worship the Sivalinga.	95.92	158.075	.386	.826
I worship the icon/picture of God Siva.	96.20	158.122	.276	.830
I worship the icon/picture of God Ganesha/Vinayagar.	97.74	143.502	.525	.819
I worship the icon/picture of God Karttikeya/Murugan.	97.64	144.480	.492	.821

I chant the mantra of "*Namasivaya*".	95.68	167.896	.060	.833
I perform meditation/ yoga towards God Siva.	96.70	154.255	.335	.828
I wear sacred ash (*Tiruniiru*) on my forehead.	95.66	167.780	.085	.833
I wear sacred ash on the forehead by lines of three.	95.86	164.368	.219	.831
I wear sacred ash on the forehead in a thin and short single line.	98.10	152.418	.300	.832
I wear *uruthirakam* on my wrist or my neck.	97.38	142.363	.559	.817
I join the major Siva, Ganesha, and Murugan festivals such as Mahasivarattiri, Sivarattiri and Thaipusam	95.96	160.896	.290	.829
I perform the *kavadi* practice.	98.92	147.871	.637	.815
I bring *paal kudam* during ceremony.	98.00	139.429	.600	.814
I practice pilgrimage (*yattirai*), make a special journey to a holy place that is temple.	96.14	156.817	.368	.826
During pilgrimage (*yattirai*), I will fast, eating just one meal per day.	97.64	142.602	.589	.815
At every step of life, my main dharma is to follow the path of good conduct.	95.70	167.235	.166	.832
As a youth, I have to be a good student/ daughter/ son.	95.92	159.953	.346	.827
As an elder, I have to raise and support my family.	95.68	167.283	.184	.832
I am respectful towards parents, elders, teachers, and swamis.	95.70	167.276	.160	.832
I observe the *samkaras* (rites of passage) in my life according to Saivism.	95.94	160.833	.378	.827
I perform the rite of birth according to Saivism.	96.14	158.204	.346	.827
I observe the rite of marriage according to Saivism.	96.28	156.165	.389	.825
I observe the rite of death according to Saivism.	95.94	161.078	.336	.828

Cronbach's Alpha	N of Items
.832	25

Table 4.0 demonstrates the Cronbach's alpha for the construct of religious practices of Saivism that recorded the highest value for the item if deleted is 0.833 which is on the item 'I chant the mantra of "*Namasivaya*"' and 'I wear sacred ash (*Tiruniiru*) on my forehead'. Both of these items are maintained because this mantra is important in the religion of Saivism and the practice of wearing sacred ash on the forehead is a very significant practice among the followers of Saivism. Moreover, Cronbach's alpha has a high value of 0.832 and does not alter significantly if the two items are dropped.

Table 5.0
Cronbach's Alpha for Construct of The Saivites' Religious Identity

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I am a follower of Saivism.	63.16	34.015	.582	.712
I am committed to following all the teachings in Saivism.	63.22	33.644	.494	.710
I have a clear understanding of the religion of Saivism that I follow.	63.24	33.778	.450	.712
I know about texts of Saiva Agamas/ Siddhantagamas.	63.48	31.887	.428	.705
I know about texts of Saivism including Tirumurai and Saiva Siddhanta.	63.42	32.208	.381	.710
I read and study the texts of Saiva Agamas/ Siddhantagamas.	63.44	31.762	.429	.705
I read and study the texts of Saiva Siddhanta and Tirumurai.	63.36	31.011	.530	.695
Religious texts are important for me to learn and understand my religion.	63.16	34.586	.553	.716
I follow strictly the texts of Saiva Agamas and Saiva Siddhanta pertaining to beliefs and ritual practices.	63.34	34.392	.261	.722
Language is important in understanding the religious text that I read and study.	63.24	34.798	.159	.729
The Tamil language is a spiritual language and it is sacred.	63.14	35.674	.248	.727
The Tamil language is a language revealed by God.	63.28	36.042	-.011	.743
The process of Islamization in Malaysia posed a challenge in maintaining the identity of my religion.	64.92	26.238	.495	.696
The challenges from the Islamization process need to be addressed so that my religious identity can be preserved.	64.56	27.721	.363	.725

The position of my religion as a minority religion in Malaysia complicates the process of strengthening my religious identity.	64.16	27.647	.437	.705

Cronbach's Alpha	N of Items
.729	15

As for the construct of Saivite's religious identity, table 5.0 displays the highest value of Cronbach's alpha if the item deleted is 0.743 on the item 'The Tamil language is a language revealed by God'. This item is retained because the Tamil language is very important for the identity of Saivism believers especially those of Tamil nationality and this item has been suggested by Saivism religious experts to be included in the questionnaire instrument. Cronbach's alpha for all items in this construct of Saivite's religious identity is 0.729.

Table 6.0
Result for overall value of Cronbach's Alpha of the instrument

Instrument	Cronbach's alpha
Beliefs of Saivism	0.76
Religious Practices of Saivism	0.83
The Saivite's Religious Identity	0.73
Overall value of Cronbach's alpha	**0.88**

Table 6.0 demonstrates the Cronbach's alpha values for the entire items that include the construct of beliefs of Saivism, religious practices of Saivism, and the Saivite's religious identity. The overall Cronbach's alpha value is 0.88. This value indicates that all items have good reliability, and many researchers admit that values above 0.8 usually indicate very high reliability to be accepted especially for questionnaire items (Aiken, 1980; Cohen et al., 1960; Zaidatun and Salleh, 2003).

Discussion
This study was conducted to test the validity and reliability of the instrument for measuring the identity of Hindu Saivites through beliefs and religious practices in Malaysia. The expert validation and pilot test were conducted to test the validity and reliability of the instrument and the results showed that the instrument constructed can be accepted to be used in further research. The results showed Cronbach's alpha for the construct of beliefs of Saivism is 0.76, religious practices of Saivism is 0.83, the Saivite's religious identity is 0.73 and the value for the whole item is 0.88. As suggested by DeVellis (2017), the accepted Cronbach's alpha value is from 0.70 to 0.95. Meanwhile, there are other scholars such as Sekaran (1992) and Mohd Majid (2004) who think that a value of 0.60 is sufficient to maintain the consistency of the items. Therefore, the instrument that has been developed by the researcher is acceptable because it exceeds the value of 0.60. Furthermore, the value for the whole item is good which is 0.88. As mentioned before, a value that is above 0.8 shows very high reliability as agreed by (Aiken, 1980; Cohen et al., 1960; Zaidatun and Salleh, 2003). So, this instrument can be applied in real studies.

Conclusion

This study found that the instrument constructed is valid and reliable for use in the actual study based on the overall value of Cronbach's alpha which recorded a highly reliable score. Furthermore, the results indicate that the three constructs in this instrument, namely, beliefs of Saivism, religious practices of Saivism, and the Saivite's religious identity, are acceptable, and all items are retained. Hence the instrument is valid and reliable in measuring the identity of Hindu Saivites through beliefs and religious practices. The results also indicate that the instrument developed can be used among the Hindu Saivites population in Malaysia. For further research, future researchers may improve the study's results by performing another analysis such as exploratory factor analysis in evaluating construct validity since this study only involved face and content validity.

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