

Tribalism: Scale Construction and Validation

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ABSTRACT

This research paper develops and validates a new reliable and valid tribalism scale for measuring and predicting individuals' tribal behavior within society using the segmentary lineage theory [1]. The primary measurement data were collected using pencil-and-paper questionnaires handed out to respondents in three mosques following Friday afternoon prayer in the Greater Hamilton Area (GHA), Ontario, Canada. Each of the respondents was originally from Pakistan. Using exploratory factor analysis (EFA), factor analysis (FA), and structural equation modeling technique (SEM), the newly developed tribalism scale suggested three reliable and valid dimensions for measuring tribalism at the individual level—tribal pride, tribal loyalty, and tribal group identity. The study also discussed future research and the theoretical and practical implications of the scale.

Keywords

Tribalism Index, tribal loyalty, tribal belonging

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Introduction

Because tribalism influences social life in the Middle East and North Africa (MENA), historians, political scientists, and sociologists have shown significant interest in ethnicity and tribalism [2]. Tribalism accounts for many problems around the world such as corruption [3] [4], underdevelopment [5], violence [6], election rigging [7], and civil war [3]. There is no doubt that in many tribally-based countries people are hired based on tribal loyalty regardless of their qualifications. Available skills are, therefore, not used efficiently, causing immigration flux and unprecedented refugee disasters in Europe and elsewhere. The international organization for migration (IOM) claims that Africa loses 33% of its skilled personnel and human capital each year. An estimated 20,000 experienced engineers, doctors, and university lecturers have left the African continent annually since 1990.

Tribalism's continuing importance as social power in contemporary tribal countries has been confirmed by Puglia [8]. The tribalism phenomenon is more prominent in Africa, Asia, and the Middle East than the rest of the world. For example, tribalism has grown stronger in Libya [9]. The literature on tribalism has established that tribalism has influenced accounting, political, and socioeconomic variables. Such variables include accounting values, auditor independence, human resources, sources of corruption, political stability, favoritism, and nepotism. Other variables influenced by tribalism include levels of economic development, creativity, financial development, innovation, and bribery.

The Tribalism Index developed by Jacobson and Deckard [3] is the only quantitative measure of tribalism at the country level. The index includes five decisive factors attributed to tribal societies and communities. The first factor is population demographics (i.e., the degree to which the population is indigenous; highly tribal societies tend to have more native or indigenous communities). The second factor is ethnic and linguistic fractionalization (i.e., the

extent to which a society is heterogeneous). The third factor is gender equality (i.e., the degree to which men and women share equal roles in society). The fourth is perceptions of corruption (i.e., the extent to which societal members engage in corruption activities). The fifth and final factor is group grievance (the degree to which a particular group feels aggrieved and left out of political processes). The tribalism index has focused on tribal behavior in a society and has overlooked individuals' behavior within the tribe. Meir [10] developed another quantitative measure of tribalism at the individual level. However, Meir's tribalism measure is limited to the tribalism construct in professional rugby union and rugby league at the individual level in marketing.

To date, no other quantitative measure related to tribalism has been used by researchers to measure this construct in management science. Therefore, the purpose of this paper is to fill that gap by developing a comprehensive tribalism measure to shed light on tribal behaviors at the individual level in marketing and non-marketing disciplines (i.e., in business management and international business). That brief line of discussion leads to one research question, "Can researchers measure tribalism at the individual level in management and other disciplines?" Few researchers have tested the tribalism phenomenon. In the marketing literature, specifically, few researchers have focused on tribal characteristics or observed behaviors to measure tribalism.

The tribalism measure developed in this work will benefit operators of multicultural businesses and cross-cultural researchers alike. The scale links tribal values to individual behaviors and attitudes because the data about tribal behaviors and attitudes come from the same source. Finally, by measuring tribal values and not equating them to the tribalism index, researchers could avoid the ecological fallacy. The ecological fallacy would occur when researchers directly apply country-level relationships to individuals [11].

Literature Review

2.1. The Concept Of Tribalism

Classically, the word tribe applies to a few pre-Roman European and pre-colonial African societies [12]. According to James [12], modern tribalism is defined by divisiveness that threatens state integrity. An example of this is the 1994 Rwandan genocide involving the Hutu and Tutsi tribes in which 800,000 people were killed, and more than two million people lost their homes [12].

Tribalism is the second subcategory after culture. However, there is no single accepted definition of tribalism in the literature [13]. The Engaged theory defines tribalism as a way of being based on collections of oral communication, reciprocal exchange, kinship-based organization, manual production, and analogical inquiry [12]. Glaze and Moynihan [14] define tribalism as “a label for social groups who feel recognizably different by descent and the common culture” [14]. Regardless of how researchers have defined tribalism, the common theme among these various definitions still exists. For example, loyalty, oneness, belonging, commitment, identity, face-saving, and patriarchy are characteristics broadly associated with tribalism.

Segmentary lineage theory, developed by Evans-Pritchard [1], explains the dynamics of tribal society. According to this theory, tribal loyalty stems from the need to ensure the well-being and rights of tribesmen in the absence of a central government. For example, during crises, such as an external threat, the tribe usually subdivides its members into subgroups based on genealogical ties. It is critical for every segment to plant clan members in all ecological zones to ensure togetherness and oneness of the tribe should the tribe experiences an attack from outside. Caton [15] explained how segmentary lineage theory links to the concept of honor in the Arab tribal societies. The theory also explains how feuds over honor unify a tribal group against other groups. The concept of honor indicates patriarchy in the Arab tribal culture.

The literature review, therefore, helped me to understand the many definitions of a tribe. Each description provided my study with a deep understanding of tribalism, and how it relates to other concepts such as loyalty, group identity, belonging, patriarchy, and pride. The existing literature also provided this study with a theory that explains the dynamics of tribal society. Without the past and the current research, I would not be able to link the concept tribalism to other concepts, write my questions, and have appropriate content validity.

In conclusion, there are several definitions for a tribe including common culture, belonging, loyalty, and group identity. Nothwehr [16] and Evans-Pritchard [1] defined a tribe as individuals' intense feelings of belonging and loyalty to the tribe. Mael and Ashforth [17] described a tribe as a sharing of collective group identity. Glaze and Moynihan [14] defined a tribe as a social group that feels distinctly different by a decent and shared culture. Based on the mentioned definitions of a tribe and the link between the tribe patriarchy, I can conclude that the concept tribalism relates to many concepts including, tribal loyalty, tribal

belonging, tribal pride, tribal patriarchy, and tribal group identity.

2.2. Tribal Loyalty

Tribal loyalty is the strong sense of being loyal and faithful to the tribe. It requires supporting and defending the tribe and its members emotionally, financially, and physically. Tribal loyalty has been the spine of tribal societies. Without tribal loyalty, these societies cannot offer stability or protection to tribe members. However, tribal loyalty has also supported wrongdoing by requiring blind adherence from tribal peoples. The literature consistently defined tribalism as tribal loyalty and the sense of belonging shared by tribal members. According to Glazer and Moynihan [14], tribalism may refer to a way of behaving or thinking in which individuals are more loyal to their tribes than to their social groups, friends, and countries [14]. Tribesmen are more loyal to their tribes because of kinship structure built on genealogical relationships and strong ancestral unity [1]. One can conclude that tribal loyalty stems from shared blood and genes. Every tribe member considers themselves a brother or sister of other tribe members. Tribalism also refers to the attitude of intense loyalty to one's tribe [16]. Tribes usually provide their members with safeguards for unquestioning loyalty when the stressful time comes [18]. Tribe members need protection when problems such as blood feuds and revenge arise with other tribe members [1].

2.3. Tribal Belonging And Oneness

Tribal belonging is the emotional need of tribal members to associate with and be accepted by other members of the tribe. Nothwehr [16] defines tribalism as the attitude and practice of having strong bonds to one's tribe and loyalty that leads one to demonize or exclude others who are not part of the tribe. Those are the ones who are not related to the tribe by blood, do not speak the same tribal language, or share the same traditions.

According to Evans-Pritchard [1], tribes are a segment unified by the genealogical structure of common kinship to form a lineage system. Tribesmen have a feeling of oneness that comes from their belonging to a tribe of shared blood. Tribal feelings of unity and belonging help a tribe settle their inter-tribal disputes. The sense of belonging also encourages tribesmen to come together should disputes with outsiders arise [19]. Anthropologist Lewis Henry Morgan offers a contemporary definition of tribalism as the feeling of indebtedness and belonging to other members of the tribe [20] [21]. Tribalism, therefore, stimulates tribesmen to have a positive attitude toward people who are related to them through family, clan, and kinship. Therefore, tribalism distances tribe members from individuals unrelated to them [22].

2.4. Tribalgroup Identity

Group identity may be defined as a feeling of oneness or belongingness with the object of identification or as self-definition regarding that object [23]. In other words, individuals could have their identity modeled by the groups to which they are connected. Members of ethnic groups and

political movements draw their sense of identity from their group sharing ideas and aspirations [24]. In the context of a tribe, I define group identity as a member's sense of belonging to his or her tribe through ethnic or cultural characteristics such as distinctive language, dialect, norms, land, or customs that identify one tribe from another. In the Middle East and North Africa, some tribe members use their distinguished family name to recognize their tribe. The concept of tribalism suggests the possession of a strong ethnic or cultural identity that may separate one member of a tribal group from the members of another tribal group. Based on stable relations of kinship and closeness, members of a tribe tend to have a strong feeling of shared identity. A strong sense of collective identity could lead members to feel tribally connected [25]. The desire to assure one's sense of identity where other people gather induces involvement with a particular group [17]

2.5. Tribal Patriarchy

Patriarchy is a social system that describes society as a whole rather than individuals within a community [26]. Patriarchy in a tribal structure refers to a hierarchical system of a society in which men control political, economic, and cultural structures [27]. There are many patriarchal features in tribalism. However, the significance of virginity in patriarchal societies structures the "honor-shame complex" [28]. Patriarchy is stronger in tribal communities and societies in rural areas [29]. Patriarchal systems persist in most tribal and developing countries in Africa and the Middle East where women live under male-domination [30]. Nakpodia and Urien [31] and Okebukola [30] believe that patriarchy is predominant in Nigerian tribal society. In the Middle East, Arab women are a minority in Israel and live in a patriarchal system of male-domination [32]. Similarly, patriarchal and vertical relationships are the basis of the Jordanian tribal social structure. Tribalism in Jordan implants a system of common values that shape gender roles. According to Pettygrove [32], the common patriarchal system allows boys more mobility and freedom than girls. According to Solati [34], patriarchy has three indicators—survival rates, public spheres, and education and demography. Solati [34] also claims that, on average, countries in the Middle East and North Africa are more patriarchal regarding women's access to public spheres. The extent of patriarchy in the MENA seems to be related to regional culture, oil income, and Islamic ideology. While the local culture in the Arab World is tribal [11], the legitimacy of patriarchy has often come from religion [29]. Christianity, Judaism, and Islam came into being in patriarchal societies [29]. In Muslim communities, in particular, and because of the firmness of kinship-ordered and tribal structures, gender relations are continuously governed by patriarchy, which continues to oversee gender relations. For example, the patriarchal tribal structure built on blood ties is still seen in Iran, Afghanistan, and the Arab World [35]. Ironically, Tillion [36] calls the tribal structure of the MENA countries "the republic of cousins." men control nomadic women [36] because society views women as a potential source of social or moral disorder [37]. Traditionally, men have the unilateral responsibility for divorce and control permission to travel or work outside the

home. Patriarchy, therefore, should be understood in developmental and social-structural terms rather than as being blended with Islam [29]. Although the tremendous oil incomes in some of the MENA countries have made patriarchy affordable [34], it can be argued that economic development and globalization integration within the world system have helped create greater employment and educational opportunities for women. Hence, some researchers concluded that patriarchy has been declining globally, and therefore, in the MENA [29].

2.6. Tribal Pride

Tribal pride is a deep feeling of satisfaction or pleasure derived from a tribe member's achievements or from honorable qualities such as generosity and courage. In other words, pride is found in a skill or quality that someone has. According to Evans-Pritchard [19], tribesmen feel pride, love, and support for other members of their tribe. Tribe members are proud of their tribes, and they believe themselves superior to those outside the tribe.

Several researchers have viewed pride as a construct consisting of two or more emotions (i.e., authentic and hubristic) [2003]. Pride in individuals' successes may promote positive behaviors in the accomplishment domain [39] and share in the development of an authentic sense of self-esteem. Hubristic pride, on the other hand, is associated with narcissism [40]. Narcissism could contribute to interpersonal problems, aggression, hostility, relationship conflicts, and maladaptive behaviors [41]. As such, hubristic pride may lead to tribal blood feuds.

Tribal pride may lead tribe members to demean other tribes, defend, or elevate their tribe if criticized. However, it is likely that ego plays a functional role in both the enhancement and maintenance of social status. People encounter and feel pride after they accomplish socially valued achievements. The feeling of pride gives individuals an indication of how other individuals in the group evaluate their behavior and that they are more likely to be accepted by their group and may deserve increased status [42].

Methodology

3.1. Scal Development and Procedure

Developing a reliable and valid scale is not an easy task for a researcher. Therefore, I adapted the process and procedures for developing a reliable and accurate tribalism instrument at the individual level from the scale construction process developed by Hinkin, Tracey, and Enz [43]. Hinkin et al. [43] developed a systematic seven-step process that outlines how to create a reliable and valid scale. Development of this new scale is also guided by Hinkin [44]. My justification for adapting Hinkin et al. (1997) is that the Hinkin process is a well-established framework. As per November 2017, Hinkin [44] has been cited in more than 1,945 articles. Besides, Hinkin et al. [44] study offer a straightforward and conceptual framework. Finally, each stage of the Hinkin [44] process increases the confidence of the construct validity.

3.2.Gudelines for Tribalism Scale Developmentd and Analysis

The seven-step procedure for constructing a new scale is shown in Table 1. Hinikin et al. [43] have organized their seven steps in sequence, and they should be applied accordingly to get the best results. However, the last step (i.e., replication) could be done in a separate study or by a different researcher. The scale validity could be the last step in the scale construction and validation (see Figure 1).

FIGURE 1:The Scale Development And Validation Process

STEP NUMBER	PROCEDURE
1	ITEM GENERATION (CREATING SCALE ITEMS).
2	CONTENT VALIDITY ASSESSMENT.
3	QUESTIONNAIRE ADMINISTRATION.
4	EXPLORATORY & CONFIRMATORY FACTOR ANALYSIS.
5	INTERNAL CONSISTENCY ASSESSMENT.
6	SCALE CONSTRUCT VALIDATION.
7	THE SCALE REPLICATION (RELIABILITY & VALIDITY).

Based on Hinkin et al. [43].3.3.Step1- Creation of the Scale Items 3.3.1.The Theoretical Domain of the New Measure According to the domain sampling theory, it is not feasible for a researcher to measure the entire domain of interest. However, it is essential that the items generated from the potential domain appropriately represent the construct under examination [45]. The theoretical domain of a new measure is critical in Step 1 because it is the key to successful item creation.

The literature review was helpful in articulating a sound theoretical foundation for the scale content validity of the tribalism measure. The existing literature on tribalism helped me to understand how previous research defined and measured tribalism at the country and individual levels. Meir’s [10] helped me understand what tribalism means to individuals and what kind of concepts I should ask the study respondents. Understanding how researchers defined tribalism has guided me to look for tribalism concepts, and therefore, writing questions. Ultimately, I could develop items (i.e., questions) that would improve the tribalism construct validation and eventually the scale generalizability.

3.3.2.Number of Items in the Scale

Specific rules about the number of items to be retained in a newly developed scale were not available from the literature. However, a new measure should be parsimonious, internally consistent, and be comprised of a minimum number of questions that appropriately assess the primary domain of the researcher’s interest [46]. Adequate reliability (i.e., internal consistency) can be achieved with four or five items per scale [47]. However, it is possible to keep a factor with two items that are highly correlated with each other and not highly correlated with additional questions ($r > 7.0$) [48,p.821]. Some recent studies suggest that a single-item measure may be sufficient for constructs with very narrow definitions [49]. For instance, Yoo and Donthu [50] developed a 9-item Sequel Scale ((ease of use (2), aesthetic design (3), processing speed (2), and security (2)). It is important to keep the scale short by using fewer items, which means minimizing response biases caused by fatigue

and boredom [51]. As a rule of thumb, additional items also demand more time in both the scale development and survey administration of a measure [52]. According to Hinkin et al. [43], the response bias and time issues would suggest that four to six items could be adequate for most constructs in developed measures. Also, Hinkin et al. [43] anticipated that for the last scale, about 50 % of the new items would be retained. Hence, these researchers suggest that the number of questions generated for a new scale developed should be as twice the number of items needed for the final measurement.

3.3.3.Deductive Approach

I started the scale development process deductively by using the segmentary lineage theory, the definition of the tribalism construct, and the literature review. According to Schwab [53], in deductive scale development, both an understanding of the relevant literature and a theoretical definition of a construct are needed to guide the creation of items. For example, Getty and Thompson [54] used a deductive approach and provided an excellent example of item development for a lodging quality measurement. I chose deductive scale development to create the primary set of questions because it provided me with enough information to generate the initial round of items based on the segmentary lineage theory and the literature. The deductive process is also the most appropriate approach for most situations when a theory exists [44]. For example, both the segmentary lineage theory and the literature review helped me define the tribalism construct.

Next, I used the theoretical definition of tribalism as a guide in generating and developing the items [53]. Finally, the deductive approach helped to assure the content validity of the final scale [44] and, therefore, the scale generalizability.

3.3.4.Item Development

According to Harrison and McLaughlin [55], a few things should be considered when writing measurement statements. First, the language used in the statement should be simple and familiar to the target audience. Second, statements should not be too long; Instead, they should be as short as possible. Third, a researcher should avoid mixing items assess behaviors with items that assess other feelings. Finally, it is critical for a researcher to keep the consistency of all questions in the measure regarding perspective. According to Hinkin [44], items should address a single issue. Also, “double-barreled” items should be avoided. For example, a statement such as “people in my tribe are generous and honest,” confuses respondents and may well represent two separate constructs. Leading questions may bias responses and are also to be avoided. To obtain more variance, researchers should use items that allow respondents to provide different answers. Finally, there is no agreement on the issue of reverse-scored items or negatively worded questions. Hill [56] recommend that researchers pay careful attention to commonalities and factor loading when conducting factor analysis. Following the above guidelines, I began writing the items for the tribalism construct based on the segmentary lineage theory and the literature review. To assess the construct

under investigation, I created a pool of 48 items for the first scale version as a starting point. However, after conducting a preliminary pilot study in the US with 50 respondents (male and female, ages of 25 to 67) via an email link to Survey Monkey, I realized that many of respondents either quit the survey before answering the last ten questions or provided the same answer for all questions. Based on the Survey Money feedback I received, I determined that the survey had too many questions. I also realized that some questions were either double-barreled and /or too long. Respondents to the pilot study were unhappy with a survey that took more than 15 minutes to complete.

To address the problems mentioned above, I interviewed sixteen tribal people from Sudan, Pakistan, Afghanistan, Nigeria, Somalia, and Iraq who are fluent in English. These interviewees were males and females between the ages of 25 to 67. Based on the interviews and my dissertation chair feedback, I eliminated confusing and double-barreled items and replaced them with single-issue items. For example, items such as “attending tribal rituals, wearing tribal clothing, and singing tribal songs are all important parts of being a tribe member.” Such questions may appear in more than one construct and may confuse some respondents. It is also critical to keep all items consistent and avoid mixing items that assess cultural dimensions such as collectivism and unethical behavior with items that assess tribalism [56]. Besides, the questions were kept as short and straightforward as possible, and I used language that was familiar to my target respondents. This helped me create questions that would be understood by the respondents as intended by me as a researcher. Finally, based on the content analysis, only 41 items were retained in the second version of the Tribalism Questionnaire.

3.3.5. Content Validity

It was important in this study to use a content validity assessment technique to provide an argument of content adequacy. I adopted a method described by Schriesheim et al. [57] which has recently been used by MacKenzie, Podsakoff, and Fetter [58]. Based on this technique, I provided five naive respondents with a two column table; the first column has construct definitions while the second has the corresponding items. The naive respondents were then asked to match definitions in the first table with questions in the second table. Also, an “unclassified” category of items was included in the second column that did not match any of the definitions in the first table. This provides a measure of how accurate the naive respondents were in matching items with definitions. With this method, more than 75 % of the naive respondents correctly matched items. Although this technique does not promise content validity, it gives evidence of content adequacy [44].

3.4. Step 2- Assessment of Content Adequacy

Three techniques are typically used to provide evidence of a content valid scale. However, none of the three guarantees a 100 % content valid measurement [43]. Therefore, to ensure adequate content validity, I used a technique that is better suited to my study. This technique was a method from Step 1 that I modified to allow me to delete conceptually

inconsistent items. Accordingly, I consulted experts in the domain as well as respondents who were required to sort or categorize the scale items based on their similarity to the definition of the tribalism construct. In addition, I asked some naive respondents if they could read the words, understand the questions, and understand the construct definitions.

Furthermore, I asked two respondents to read definitions without a title and then match the definition with a corresponding item. Following the adequacy assessment of the scale content, I created the second version of the 41 questions. I developed these questions to assess five dimensions of an individual in the tribalism construct. These five dimensions include belonging, loyalty, pride, group identity, and patriarchy.

3.4.1. Content Adequacy

The sample used to assess content adequacy encompassed 50 respondents who currently live in Hamilton, Ontario. These interviewees were males and females between the ages of 25 to 67, all of whom were born and raised in Pakistan. The majority of these respondents only recently immigrated to Canada. I chose respondents from Pakistan because Pakistanis are the most tribal people in the world [3].

3.5. Step 3- Questionnaire Administration and Data Collection

Questionnaires were administered in three mosques in Hamilton, Ontario, Canada following Friday afternoon prayer. First, the religious leader of the mosque (Imam) announced the survey. Then, with the help of three volunteers, verbal and written instructions were handed out, followed by the consent forms and surveys. The respondents answered the survey questions in ten to twelve minutes. The pen-and-paper surveys were answered anonymously and dropped in a sealed box at the mosque doors. As mentioned above, I presented the 41 retained items to survey 130 respondents using paper-and-pencil administered questionnaires. Respondents were males (71%) and females (19 %), ages 25 to 67. The surveys were not translated to any other languages because the respondents were all fluent in English.

To clean the collected dataset, I excluded all respondents who did not complete the survey questions or who answered each of the questions with the same answer. Exploratory factor analysis (EFA), factor analysis (EFA), and SEM analysis were done in SPSS 26 software using the cleaned dataset (118 responses). Out of the 41 questions, only items with a 0.40 criterion level and no cross loading were retained for an additional sample and subsequent administration. This item reduction process appears to be the most commonly used for ensuring significant factor loading [59]. These factor loadings provided strong support for the five proposed dimensionalities of construct tribalism.

3.5.1. Using Pencil-and-Paper Self-Administered Questionnaire

Because web-based questionnaires are less expensive to administer than pencil-and-paper surveys, they can take the place of the pencil-and-paper surveys [60]. Recently, researchers have argued that web-based questionnaires could provide comparable participant responses to pencil-and-paper questionnaires [61]. However, responses to internet questionnaires may be affected by differences in computer displays or participants' computer-related anxieties [62]. Given the chosen study population, I decided to use pencil-and-paper questionnaires to avoid computer-related issues and to achieve quick, immediate responses. It was challenging to find mailing addresses and emails to communicate with all participants. Not having reliable means of communication was another reason that why I preferred to use pencil-and-paper questionnaires in the present study.

3.5.2. The Influence of Incentives on the Study Response Rate

Some researchers have reported improved response rates [63]. Others concluded that using incentives has only a negligible impact on response quality [64]. Cash incentives also bring down the overall costs of the survey administration [65]. The value of the incentive influences the survey response rate [66]. Therefore, each respondent in this study received a \$5 gift card before completing the survey. As a result, the response rate for this survey was 91%. In other words, out of 130 survey questions, only twelve respondents either failed to answer all questions or marked all items with the same answer.

3.5.3. Item Scaling

In this study, I used a 5-point Likert scale. Response choices range from 1 (strongly agree) to 5 (strongly disagree). The 5-point Likert scale is one of the most commonly used scales in survey research questionnaires [67]. I chose to use a 5-point Likert scale for several reasons. First, this scale offers improved response quality and rate due to a lower respondent "frustration level" [68]. Furthermore, a 5-point Likert scale is less confusing [68]. This scale is also reported to be more reliable [69]. Finally, a five-point scale is readily understandable by respondents, and it also allows respondents to express their views quickly and easily [70]. The 5-point Likert scale used in this study ranges from strongly agree to strongly disagree [10].

3.5.6. Sample Size

The adequate sample size for statistically significant results depends on the number of items or variables assessed in the study. For example, the sample size needed for robust results a researcher should consider calculating the sample size from item-to-response ratios ranged from 1:10 [53] to 1:4 [71], for each set of scales when a researcher does factor analysis (FA). According to Guadagnoli and Velicer [72], in most studies, a sample size of 150 respondents should be enough to obtain satisfactory exploratory factor analysis

(EFA) results provided that inter-correlations between items are reasonably high. However, Bollen [73] recommends a minimum of 100 observations for confirmatory factor analysis (CFA). As a rule of thumb, power increases as the number of observations increases. Hence, a sample size of 118 responses for the EFA in this study is considered appropriate.

3.6. Step 4-Factor Analysis and Exploratory Factor Analysis

For scale development, exploratory factor analysis and confirmatory factor analysis are the two fundamental factor analyses used by researchers. Confirmatory factor analysis is a critical step that helps determine scale validity [44]. Researchers use EFA as a technique for data reduction (i.e., to obtain a more parsimonious set of variables). Confirmatory factor analysis, on the other hand, is usually used to statistically evaluate the quality of the factor structure as well as the relationships among scales and items.

3.6.1. Conducting an Exploratory Factor Analysis

Exploratory factor analysis (EFA) is useful for both deductive and inductive studies. For example, in inductive research, EFA is helpful for identifying predicted item loadings. In both deductive and inductive studies, before factor analysis, deleting a variable that correlates with all other variables at less than 0.40 is recommended [74]. According to Churchill [75], low correlation items suggest that the items are producing unreliability and errors because they are not drawn from the adequate domain. The number of questions to be retained using EFA is subjective. However, a Scree Plot of the percentage variance explained or Eigenvalues greater than 1 [76] are the most common ways to determine the number of retained factors. If a researcher assumes that factors are largely uncorrelated, then an orthogonal rotation should be used. If the factors are correlated, then the researcher should use an oblique rotation. However, it may be useful to conduct both the orthogonal and oblique analyses in determining which items to retain.

When eliminating questions, I relied more on the orthogonal analysis because my study intends to develop a scale with factors that are relatively unrelated to one another. Therefore, in this study, I only retained items that distinctly load on one single factor. I also used extraction from communality statistics in the SPSS 26 and a Scree Plot to decide which items to keep. The proportion of variance explained by each of the items allowed me to exclude those items with lower communality and keep those items with higher communality extraction.

I followed prior research recommendations when conducting EFA. Among the factoring methods commonly used in previous research principal axis is recommended to avoid issues associated with the principal component method of analysis (e.g., specific, common, and random error variances) [70]; [59]. Up to this point, five factors were retained in the present study. The decision of maintaining five factors depends on both the empirical results ($r \geq 0.70$) and the underlying theory. The empirical

results support factors based on reliability, a Scree Plot, factor loadings (Figure 2), Eigenvalues, and communalities.

Figure 2:Factor Loadings

ITEMS	FACTO R1	FACTO R 2	FACTO R 3
My tribe's land has a special meaning to me.	.716		
Belonging to my tribe is important to me.	.711		
The history of my tribe's land is important to me.	.701		
My tribe's reputation is important to me.	.699		
Speaking my tribe's language is important to me.	.682		
Interdependence between extended family members is important to me.	.679		
My tribe's home ground is important to me.	.616		
I feel proud of my tribe's success.	.614		
I feel proud of my tribe's history.	.576		
I appreciate having knowledge about my tribe's history.		.836	
I appreciate having knowledge about my tribe's traditions.		.769	
I feel proud of my tribe.		.761	
I feel like a faithful person to my tribe.		.736	
I proudly describe myself as a member of my tribe.		.684	
I enjoy attending social events with extended family members.			0.864
I am willing to grant favors to extended family members.			0.749
I enjoy social gatherings with my extended family members.			0.725

Although retaining items is a subjective process, various indicators are available. In this study, Eigenvalues greater than one (Figure 3), as well as a Scree Plot of the variance [76] were used to determine the number of factors to retain. I used an oblique rotation because the three factors are correlated. However, to increase confidence in item removal decisions, I also conducted an orthogonal rotation. I relied heavily on orthogonal rotation when removing items because my ultimate goal was to develop a new reliable and valid scale. Hence, I retained items that loaded on only a single factor. Also, I used the 0.40 criterion level in judging meaningful factor loadings [59].

Figure 3:The SPSS Output

TEST	RESULT
Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO)	0.869
Approx. Chi-Square	1136.831
Bartlett's Test of Sphericity (df)	136
Bartlett's Test of Sphericity (Sig)	0.00
Communalities (Extraction)	0.50—0.81
Extraction Method	Principal Component Analysis.
Total Variance Explained	63.245
Eigen Values	1.572 and above

Furthermore, I retained items with higher communalities (i.e., > 0.60) using communality statistics, which show the proportion of variance explained by each item [54]. Finally, after dealing with Eigenvalues, communality statistics, and a Scree Plot, I deleted items loading inappropriately, and the analysis repeated. I stopped the process when I obtained a

clear factor structure matrix. The EFA process resulted in five factors with twenty items for a reliability check.

3.6.2. Conducting Confirmatory Factor Analysis

In scale development, CFA is recommended because it confirms appropriate and thorough EFA analyses [44]. Another reason for conducting the CFA is the possible lack of external consistency in EFA items that load precisely, potentially demonstrating a lack of fit in the measurement model of multiple indicators [77]. In the CFA each item is supposed to load only on its appropriate factor. To achieve that goal, I followed the recommendation of Harvey et al., [78] and used CFA analysis with an item variance-covariance matrix. Procedures for the two analyses were the same except that in the CFA, I adjusted the system for five factors rather than relying on Eigenvalue greater than one. Adjusting the system for five factors allowed me to get the five factors I had from the EFA.

3.7. Step 5-Assessment of Internal Consistency

There are many ways to calculate reliability. However, Cronbach's alpha (α), which refers to how well the scale items are consistently measuring the same construct, is the most accepted reliability measure [79]. According to Nunnally [80], for an exploratory measure, a significant coefficient alpha ($\alpha=0.70$) indicates high item homogeneity (or covariance) and suggests that the study sampling domain has been captured appropriately [75].

Reliability in the new tribalism scale developed in the present study is supported by high internal consistency (i.e., Cronbach's coefficient alpha (α)). The new tribalism scale has a preliminary (i.e., via Cronbach's coefficient alpha) acceptable level of reliability for three factors including

tribal group identity ($\alpha=0.899$), tribal pride ($\alpha=0.879$), and tribal loyalty ($\alpha=0.760$). However, Cronbach's coefficient alpha (α) tests showed tribal belonging ($\alpha=0.629$), and tribal patriarchy ($\alpha=0.645$) were not reliable ($\alpha < 0.70$). Therefore, I excluded both tribal patriarchy and belonging while keeping tribal loyalty, group identity, and pride as the three dimensions for further reliability and validity tests using AMOS (i.e., the model fit-test).

3.8.Step 6- Construct Validity

As a rule of thumb, the new scales should demonstrate construct validity. Construct validity includes convergent validity (i.e., the extent to which the tribalism scale correlates with other instruments designed to value similar constructs), discriminant validity (i.e., the extent to which the tribalism scale does not correlate to different measures, and content validity (i.e., the extent to which an instrument measures the intended behavior it is designed for). Acceptable reliability ($\alpha>0.70$) and content validity provide strong evidence of construct validity [43].

3.8.1.Model Fit During Confirmatory Factor Analysis in Analysis of a Moment Structures

Researchers have used a lot of statistics to assess goodness of fit. However, in this study, I used the chi-square statistic (χ^2) because it allows the assessment of a model fit and permits the comparison between the distribution of the observed sample with the expected probability distribution. Carmines and McIver [81] suggest that the chi-square could be acceptable if its value is up to three times the degree of freedom. However, a smaller chi-square is deemed to improve model fit. Thacker, Fields, and Tetrick [82] suggest that a better model fit is when the value of chi-square (χ^2) and the value of the degrees of freedom are closer to one another. It is desirable for a researcher to have a nonsignificant chi-square. However, a significant chi-square may not be problematic if a researcher can achieve additional adequate fit indices, considering the sensitivity of chi-square to sample size. Several researchers have recommended that the value of relative chi-square (χ^2/df) to the degree of freedom (df) should range from five (5.0) [83] to two (2.0)[84]. In other words, (χ^2/df) approximately lies between 5.0 and 2.0.Besides the chi-square, researchers could use several goodness-of-fit indices (about 30 indices) to assess analytic results out of the CFA [58]. These indices gauge the amount of covariance and variance accounted for in a model. In addition to the Comparative Fit Index (CFI), which has been recommended to control for the sample size effects, some scholars recommend the Tucker-Lewis, Normalized Fit, and the adjusted Goodness of Fit indices [85]. The values of these indices range from zero to one. The interpretation of model fit indices is somewhat subjective. However, a reasonably good model fit has index values greater than 0.90 [86]. Bagozzi and Phillips [87] recommend the use of the Root Mean Square Error of Approximation (RMSEA), where the value of less than 0.05 is considered acceptable. However, a cut-off value just about .06 [88] deemed to be the consensus in the social

science area. According to Simon Moss [89], a model is considered as acceptable if: (1) the Normed Fit Index (NFI) is greater than 0.90 [90]; (2) the Goodness of Fit Index (GFI) is greater than 0.90 [91]; (3) the CFI is greater than 0.93 [90]; (4) the RMSEA is less than .08 [91]; and (5) the RMSEA, ideally, is less than .05 [93]. If not, the RMSEA upper confidence of interval should not surpass 0.08 [88]. In conclusion, the matter of which indices to be reported by a researcher as evidence of scale validity is based on the recommendations of Kline [94] and Boomsma [95]. Kline [93] recommends researchers to report the chi-square statistics, p-value, the CFI, the degrees of freedom, the RMSEA, the RMR, and one of the parsimony fit index (for example PNFI). In addition to the indices mentioned above, Boomsma [94] recommends researchers to report the squared multiple correlations of each equation. The rationale behind choosing these indices over other indices comes from their sensitivity to model misspecification, sample size, and parameter estimates. These accepted indices (Figure 4) have been found to be the most insensitive indices to parameter estimates, model misspecification, and sample size.

Figure 4:The Values of the Model Fit Indices and Acceptable Thresholds

Fit Index	Values of the Index	Acceptable Threshold Levels
NFI	0.952	Values greater than 0.95
PNFI	0.510	Within region [84].
RMSEA	0.046	Values less than 0.07 [95].
RMR	0.038	Good models have small RMR [84].
CFI	0.990	Values greater than 0.95
P-Value	0.230	Not a significant value.
df	15	No consensus.
Chi-Square	18.648	Low χ^2 relative to df with an insignificant p-value ($p > .05$).
GFI	0.964	Values greater than 0.95 [96].
Probability Level	0.230	No Concerns.

3.8.2.Common Method Bias

Common method bias (CMB) in survey design affects accurate measurement of variables and provides accurate correlations. Effects due to common method bias may be interpreted regarding response biases (e.g., common source or rater, acquiescence, leniency effects, halo effects, yea-and nay-saying, and social desirability). Regardless of the CMB source or origin, systematic error variance could have a significant negative impact on the empirical results of a study, leading to potentially false conclusions [97]. This type of bias occurs in surveys because the survey instrument causes variations in responses and introduces a bias, hence, variances, which the instrument attempts to find. Therefore, results may be contaminated by the bias of the survey instrument [98]. Because CMB errors are the major source of measurement errors, it is critical to address CMB by taking proactive steps to ensure that common method bias is not misrepresenting the data results. This type of bias is associated with surveys designed for respondents to answer questions about both

dependent and independent variables [98]. A recent study by Chang, Witteloostuijn, and Eden [99] emphasized that a potential CMB error occurs due to respondents' sociability, that is, the belief that the need for social approval can be obtained through culturally acceptable and adequate behaviors [100]. In other words, social desirability could lead to CMB because some respondents want to provide favorable or positive answers. Based on that argument and the nature of my topic, I decided to address CMB, take proactive steps to reduce it and test whether this study has influenced by CMB errors.

Podsakoff et al. [98] suggested several strategies to address CMB and to design survey protocols and statistical controls. This study used the following methods to address CMB using different response techniques.

- (1) Rather than relying solely on interviewing respondents at their homes or sending them envelopes by mail, I met respondents at a place of their choice (i.e., at the mosque).
- a) I changed the order of the questions.
- (2) Carefully wording survey items. I kept the wording simple and clear. I also avoided terminology that can have multiple meanings for respondents.
- (3) Protecting the rater's anonymity; the Pakistani community is a collective society and people mostly know one another.
- (4) Reducing the rater's anxiety by telling them that there are no right or wrong answers. This increases the likelihood of receiving honest answers.
- a) I randomized the order of questions to hold up possible interference between items.
- b) I pretested the survey instrument with a representative group of raters to validate the scale's clarity, readability, length, and its adequacy for the sample frame.

3.8.3. Testing Common Method Bias

Three CMB techniques are used in surveys including, Harman's Single Test-Factor (HSTF), the common latent factor, and the common marker variable [101]. The HSTF is widely used [98] to determine if one general factor has caused the majority of the variance. In the HSTF all items that measure latent variables load into a single common factor. According to Eichhorn [101], the CMB does not affect data if the percentage of the total variance for the common single factor is below 50 % of the portion of the total variance explained. Therefore, the CMB does not affect the data of this study because the total variance explained by a single factor is less than 50 % of the total variance (Figure 5).

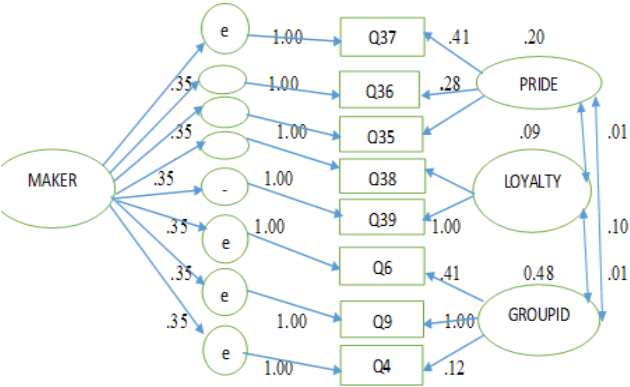
Figure 5: Harman's Single Factor Score Using SPSS

Component	% of Variance Explained	% of Cumulative Variance Explained
Factor 1 Only	45.717	45.717

The second CMB technique is the common latent factor which is similar to the HSTF where variables load to a single common factor. Researchers estimate the common variance by taking the square of each common factor path before standardization. Eichhorn [100] concludes that the threshold for the common latent factor is set to 50 %. As such, CMB does not influence this study because the

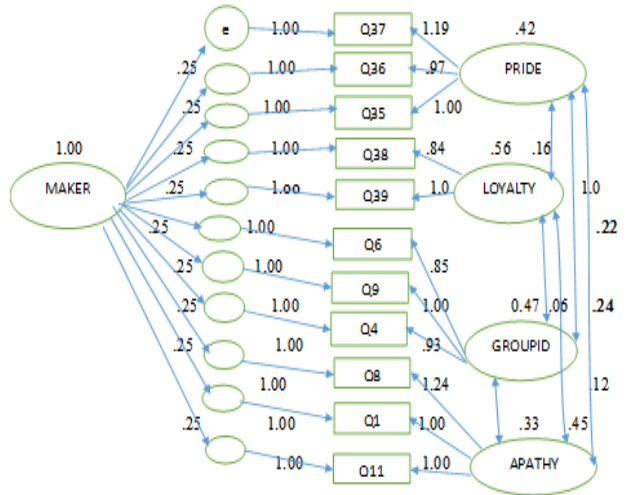
common variance is $(0.35 \times 0.35 = 0.1225)$ 12.25% (Figure 6).

FIGURE6: The Common Latent Factor Analysis



The third CMB technique is the common marker variable which allows researchers to encompass measures thought to affect the source of the bias itself. Again, the common threshold is 50 % [101]. Based on that threshold (50 %) and the results from the common marker variable test (25 %), CMB does not influence the results of this study (Figure 7).

FIGURE 7: The Common Factor Maker Variable Analysis



3.8.4. Ethical Considerations

Ethical concerns have been recognized and addressed by Ramos [102], Shaw [103], and others. Informed consent, beneficence (i.e., do no harm), respect for confidentiality and anonymity are the primary ethical issues in conducting research [103]. By complying with the University Signed Consent Form for Research Involving Human Subjects, the study has addressed all major ethical issues. The Signed Consent Form guides and approves research through the Institutional Review Board (IRB). The IRB requires that informed consent comply with the requirements of US Department of Health and Human Services, Office for Human Research Protections Title 45 of the Code of the Federal Regulations 46.116 (45 CFR 46.116). The documentation for informed consent must comply with 45 CFR 46.117.

This study addressed the ethical issues in research by requiring participant signatures on the consent form which is approved by the IRB. The IRB form includes several things related to the study: (1) the title and a brief description of

the study; (2) the risks and the benefits of the research; (3) the time commitment required to complete the survey and payment provided for participating; (4) information on how participant identities are safeguarded; (5) participants' right to withdraw from the study; (6) and the names and contact information of the investigators.

3.9.Step 7- Reliability and final Scale Validity

The EFA and CFA analyses indicate that the newly developed tribalism scale comprises three reliable and valid factors ((tribal loyalty ($r = 0.78$), tribal pride ($r = 0.82$), and tribal group identity ($r = 0.78$)). These values are explained in table 5 (see Figuree 5). Coefficient alpha scores f for each of the interval scaled dimensions exceeded the conventional benchmark [80] established for construct reliability for exploratory scales ($\alpha > 0.70$).

For the scale validation, I used data from 41 questions from an initial set of 118 respondents. I conducted the CFA using the remaining ten items, which allowed me to confirm the remaining three-factor structure of the scale and to validate uni-dimensionality [75].

Measurement model fit was estimated using AMOS 24. The statistical chi-square for the study model was not significant ($\chi^2 = 18.648$, $df = 15$, $p = 0.230$). The CFI was 0.990, the AGFI was 0.915, the NFI was 0.952, the RMR was 0.038, GFI was 0.964, and RMSEA was 0.046). Each of these indices collectively suggested an acceptable model fit [88]. Based on Mathwick and Rigdon [105], the individual item loadings were all significant at $p < .001$ and the standardized regression weights for all items ranged from 0.60 to 0.99, suggesting high convergent validity. The coefficient alpha scores for tribal loyalty ($r=0.78$), tribal pride ($r=0.82$), and tribal group identity ($r=0.78$) are shown in Figure8.

Figure 8:The Reliability And Validity Values Using Gaskin Excel Sheet Testfor The Scale

DIMENSION	CR	AVE	MSV	ASV	GroupID	LOYALTY	PRIDE
GROUPID	0.777	0.545	0.504	0.271	0.739		
LOYALTY	0.784	0.653	0.267	0.153	0.195	0.808	
PRIDE	0.824	0.540	0.504	0.386	0.710	0.517	0.735

Each of the three factors had good internal reliability [80]. Lastly, testing for discriminant validity, I found that $MSV < AVE$ and $ASV < AVE$, that is, the square root of AVE was greater than the inter-construct correlation (Hair et al., 2010), which provides substantial evidence of discriminant validity. The standardized regression weights ($AVE > 0.5$) were evidence of convergent validity, that is, the composite reliability was high for all factors. The SEM validity tests in AMOS indicated that only eight of the 41 questions should be retained because, based on the results from the convergent and discriminant validity, the fourth and the fifth factors did not fit the model. The Gaskins AMOS validity test using an excel spreadsheet offers evidence of reliability, convergent, and discriminant validity. The square root of AVE (0.739) is greater than the inter-construct correlations (0.735). Besides, both MSV and ASV were less than AVE.

Results And Analysis

4.1.The Scale Validation Using Simple Linear Regression Analysis

For the scale validation, I used the newly developed tribalism scale to collect primary data on tribalism at the individual level using an email link for 220 respondents from 17 different countries. These countries include; Iran, Pakistan, Iraq, Somalia, India, Nigeria, Saudi Arabia, Sudan, Yemen, Kenya, Libya, Angola, Rwanda, Ethiopia, Chad, South Sudan, and Jordan. These 220 respondents are university students at the International University of Africa in Khartoum, Sudan. The age of these respondents ranges between 19 and 45, 80 % of the respondents are males, and 20 % are females. 21 % of respondents are married, and 79 % are not married. 87 % of my respondents are Muslims, 9 % Christians, 1 % Hindus, and 3 % non-religious. The ethnicity of the survey respondents includes 93 % black, 6 % Asian, and 1 % white. I met these students with the help of the research Centre at this school when visited Sudan in January 2018. I handed out the signed consent form research involving human subjects to every participant. I provided 250 students with my email, and I have received responses from 220 students.

As of 2017, the International University of Africa had approximately 6000 students from 92 different countries worldwide. To avoid translation issues, I only surveyed students in the faculties of medicine, engineering, pharmacy, nursing, dentistry, and faculties of laboratory sciences. The students in theses mentioned faculties are fluent in English and English is the language of instructions. I asked respondents the eight questions belong to the newly tribalism developed scale.

I conducted the CFA using the remaining eight items which allowed me to confirm the remaining three-factor structure of the scale and to validate uni-dimensionality [75]. The EFA and CFA analyses indicate that the newly developed tribalism scale comprises three reliable and valid factors ((tribal loyalty ($r = 0.75$), tribal pride ($r = 0.88$), and tribal group identity ($r = 0.76$)). These values are explained in Figure 9. Coefficient alpha scores for each of the interval scaled dimensions exceeded the conventional benchmark [79] established for construct reliability for exploratory scales ($\alpha > 0.70$).

Figure 9:The Reliability And Validity Values Using Gaskin Excel Sheet Testfor The Scale-Validation

DIMENSION	CR	AVE	MSV	ASV	GROU P ID	LOYAL TY	PRI DE
GROUPID	0.878	0.783	0.375	0.346	0.885		
LOYALT Y	0.751	0.601	0.466	0.392	0.564	0.776	
PRIDE	0.763	0.616	0.466	0.421	0.612	0.683	0.785

The Measurement model fit for the scale validation was estimated using AMOS 24 (see Figure10)

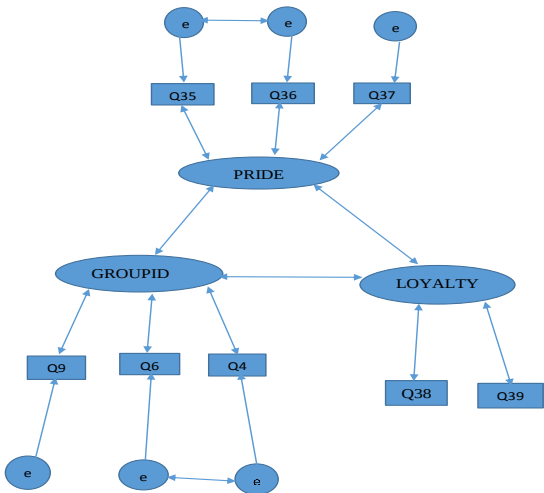
Figure 10:The Values Of The Model Fit Indices And Acceptable Thresholds-Scale Validation / Sem

Fit Index	Value s of the Index	Acceptable Threshold Levels
NFI	0.963	Values greater than 0.95
PNFI	0.385	Within region [85]
RMSEA	0.086	Values less than 0.07 [95]
RMR	0.018	Good models have small RMR [84]
CFI	0.982	Values greater than 0.95
P-Value	0.094	Not a significant value.
df	6	No consensus.
Chi-Square	10.81 9	Low χ^2 relative to degrees of freedom with an insignificant p-value ($p>0.05$).
GFI	0.971	Values are greater than 0.95 [96]
Probability Level	0.094	No Concerns.

The statistical chi-square for the study model was not significant ($\chi^2 = 10.819$, $df = 6$, $p = 0.094$). The CFI was 0.982, the AGFI was 0.898, the NFI was 0.963, the RMR was 0.018, GFI was 0.971, and RMSEA was 0.086). Each of these indices collectively suggested an acceptable model fit [88]. Based on Mathwick and Rigdon [105], the individual item loadings were all significant at $p < .001$ and the standardized regression weights for all items ranged from 0.768 to 0.925, suggesting high convergent validity. The coefficient alpha scores for tribal loyalty ($r=0.75$), tribal pride ($r=0.76$), and tribal group identity ($r=0.88$) (see Figure 11).

Each of the three factors had good internal reliability [79]. Lastly, testing for discriminant validity, I found that $MSV < AVE$ and $ASV < AVE$, that is, the square root of AVE was greater than the inter-construct correlation [104], which provides substantial evidence of discriminant validity. The standardized regression weights ($AVE > 0.5$) were evidence of convergent validity, that is, the composite reliability was high for all constructs. The SEM validity tests in AMOS indicated that only six of the eight questions should be retained in this newly developed scale. The Gaskins AMOS validity test using an excel spreadsheet offers evidence of reliability, convergent, and discriminant validity. The square root of AVE (0.785) is greater than the inter-construct correlations (0.885). In addition, both MSV and ASV were less than AVE.

FIGURE 11: Model Fit During Confirmatory Factor Analysis In Analysis Of A Moment Structures



Discussion, Limitations, And Future Research

The newly developed tribalism scale had three factors rather than the five factors I theorized at the beginning of this study. According to Nunnally [80], the reliability of the fourth (tribal belonging, $r = 0.629 < 0.70$) and the fifth (tribal patriarchy, $r = 0.645 < 0.70$) factors were not acceptable. Hence, I removed the tribal patriarchy and tribal belonging and oneness items before conducting the model fit test in AMOS. The new scale would be invalid, and the scale generalizability would be jeopardized if the fourth and fifth factors were retained. The three factors of the newly developed scale comprise eight items: two questions regarding loyalty, three questions regarding pride, and three questions on group identity.

That tribal patriarchy is not a reliable dimension is no surprise at this point. Many scholars perceive patriarchy as a social system that describes society as a whole, not as an individual behavior within the community [105] Patriarchy in tribal structures refers to a hierarchical system in which men control political, economic, and cultural structures [27]. Patriarchy is a social system which cannot be brought down to the people who participate in it. I designed the tribalism scale to measure individual tribal behavior, not the social system of tribes. Some tribe members may show masculinity behaviors, which are very close to patriarchy.

Tribal belonging, too, is an unreliable dimension. This may be explained by its inclusion in group identity. Group identity is the feeling of oneness or belongingness with the object of identification or as a self-definition regarding the specific object [23] Group identity holds the same meaning of belonging or oneness. Individuals belong to a social group if they share the same identity, which could be speaking one language or having the same customs and norms [106].

This study examined tribal behavior in Pakistan because Pakistan scored is high on the tribalism scale [3]. The assumption is that Pakistanis are the world's most tribal people. Future research should collect data from more diverse tribal countries in North America, South America, Central America, Asia, and Africa. More diverse data collection would help improve the generalizability of the tribalism scale.

Future research should also focus on mixed model research which involves qualitative and qualitative studies being mixed in more than one stage of the study (i.e., research methods, data collection, questions, data analysis, and the interpretation or inference process) [107]. Triangulation (i.e., the use of multiple data sources or methods in qualitative research to help develop a thorough understanding of a phenomenon [108] is a powerful technique that facilitates validation of data through cross verification from two or more sources. The application and combination of several research methods in the study of the same tribalism phenomenon will ensure more consistency and generalizability to the scale.

The newly developed measure can benefit multicultural business practitioners and cross-cultural researchers. The scale links tribal values to individual behaviors and attitudes because the data about tribalism, behaviors, and attitudes come from the same source. Finally, by measuring tribal values and not equating them to the tribalism index,

researchers could avoid the ecological fallacy, which happens when researchers simply interpret country-level relationships (i.e., tribalism index) as if they were applying them to individuals [11].

Practitioners could benefit from understanding individuals' tribal behaviors to build better international and cross-cultural management systems in the era of globalization. Business corporations that run overseas businesses should consider individuals' tribal behavior when hiring managers from local communities. Not knowing the international business environment, through its economic and cultural diversity, frequently puts global managers in great difficulty as it creates a large variety of ethical problems [109]. Measuring and understanding individual tribal behaviors could help international managers formulate their organizational policies and standards by combining the local tribal values, the law, the ethical business principles, and the regulatory standards in most countries of the world.

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