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Tourism-Driven Mobilities:
Scale Development Approach in Postwar Growth Setting in Sri Lanka

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ABSTRACT

Mobilities discourse, regardless of its vital significance in day-to-day life, is under examined. It draws researchers' attention at theoretical level showing significant absence of empirical studies. The absence of a scale to measure tourism driven mobilities (TDM) hinders quantitative empirical work. This study focuses on developing and validating a scale to measure TDM from the resident perspective at a fast-growing postwar tourist destination. Item generation was conducted in several stages to ensure vigorous measurement of subjects. The questionnaire was fielded using multistage sampling to collect 1,135 responses in three stages at Dambulla and Sigiriya UNESCO world heritage zones. A confirmatory factor analysis succeeded 26 items with 5 dimensions in the final scale explaining a total of 84 percent variance of TDM. Governance and capital were identified as key mobility stimuli based on factor loadings. The article proposes a scale to measure TDM from local residents' perspective replenishing mobilities literature. The scale sets new methodological directions in tourism mobility research. The TDM scale requisites further validation to establish generalizability.

KEYWORDS

Local Residents, Perceived Effects of Tourism, Postwar Sri Lanka, Scale Development, Tourism Driven Mobilities

INTRODUCTION

Mobilities have broadly been investigated at tourist destination context yet most of the contributions were conceptual and descriptive in nature (Hannam, Butler, & Paris, 2014; Sattar, Hannam, & Ali, 2013; Dredge, 2010; Mavric, & Urry, 2009; Sheller, 2009; Burns & Novelli, 2008). Macro level movement of populations, material and physical objects, technological relocations, information, communication, ideas and image transfers, temporal transformations of dwellers through daily movements all count as common forms of mobility triggers at tourist destinations (Hannam, Sheller, & Urry, 2006). Mobilities being a central phenomenon of and around human life, several researchers have attempted to clarify its epistemological fabric mainly in the discipline of human geography (Cartier, & Lew, 2005). Gerharz (2014) critically analyzes post conflict tourism developments, changing identities and mobilities in postwar Sri Lankan context. Her study concludes that further explorations on mobilities and changing agents of broad socio-cultural character of tourist destinations is needed to further the theoretical views of mobilities discourse. Pieris (2010) critically evaluates

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changing character of postwar tourist destinations due to migration and vast arrival of tourists. Biyagamage et al. (2014); Jayawardene (2013); Samaranayake et al; (2013) explain research directions for postwar tourism development in Sri Lanka. They identify the significance of tourism promotions and development driven by local cultural values. They stress the significance of global forces of mobilities in modern tourist destinations which need to be understood in broader contexts.

Recently this discourse has attracted tourism and social researchers' attention mostly at theoretical level showing significant absence of empirical studies. Mobilities discourse need to incorporate methodological advancements in order to compare the conceptual claims while establishing solid theoretical ground in literature. Though the proponents of mobilities claim it to be a paradigm, due to absence of clear frontiers of ontological and epistemological backgrounds the claim is under serious criticism. Precisely, discourse of mobilities, regardless of its vital significance in day-to-day life, is under examined in scientific community. Equally, a horizontal investigation in quantitative terms on tourism triggered mobilities at a tourist destination has long been a noteworthy absence in tourism mobilities research. A significant obstruction for such an investigation is the nonexistence of a scale to measure TDM. Hence, the central focus of present paper is to develop and validate a scale to measure Tourism Driven Mobilities (TDM) from residents' perspectives which will further the discourse of mobilities through novel methodological approach. Present study breaks the ground in proposing a scale to measure tourism driven mobilities at destination level. It concentrates on developing and testing a scale to quantify and measure TDM horizontally from resident community perspectives at a tourist destination.

Secondly, how to measure TDM is a long due question to answer making TDM research problematic and as a result such research has traditionally been confined merely to descriptive reports. To establish solid theoretical base for mobilities discourse quantitative measurement of one of its key dimensions is predominant. This is one of the significant milestones in tourism and mobilities research. Particularly, dimensions to be identified in the scale development process to measure TDM would be novel findings in the context of spatial and temporal mobilities at tourist destination level. How TDM could be measured through development of a scale has found a novel area of study which need attention to furnish foundations and to further tourism and mobilities research. Equally, extensive socio-economic and infrastructural developments taking place in postwar Sri Lanka has provided a fertile ground to establish empirical insights into TDM at local destination level.

LITERATURE REVIEW

Mobilities Discourse

Mobility which has become the evocative key word for 21st century encompass both the large scale movement of people, objects, capital information across the world as well as the more local processes of daily transportation, movements through public spaces and the travel of material things in everyday life (Hannam, Sheller & Urry, 2006). Globalization and the fluid movement of people (e.g. tourists, residents, second home owners, recreationists), objects (e.g. capital, resources) and ideas (e.g. information, images, knowledge, expertise) across the increasingly permeable boundaries of nation states have initiated a paradigm shift in the social sciences known as the mobilities (Mavric & Urry, 2009; Sheller & Urry 2006). Time and space are primary conditions for things to exist in their concurrent contexts. Contemporary circumstances or in other words existence of people, material and structures is nothing but a cross section of time organized in a spatial context. Time and space being in constant move (mobile) things systematized around them find no exception from mobility. Consequently, movement or changing nature has become a universal truth for all the tangibles and the intangibles in existence. Mobilities on the other hand play a significant role in understanding universal context since it reflects both geographical and sociological phenomena. What cause things to move, how things move and around which conditions temporal mobilities occur are universal conundrums

yet to be elucidated. Concurrent conditions being an outcome of time and spatial engagements around tangible and intangible symbols, the mobile nature or mobility invariably influence on the said tangibles and intangibles.

Hence, a clear understanding of mobilities in social context undoubtedly uncovers universal phenomena enhancing the social epistemology. Tourism as a post-disciplinary discipline could be best understood through mobilities approach (Hannam, 2009). Mobilities need empirical tools and evidences to prove its place in tourism research (King, 2015). Mobilities of people, material objects, information, communications and images can influence tourist destinations at large and TDM transforms whole social fabric by altering traditional ways of living of people. Tourism development process itself opens remote and rural spaces into globally driven networks making the local people and their social life a part of fast-moving global society. Transnational flows of labor, capital and information together with people make distant localities more fluid. Consequently, character and psycho of residents at destinations are altered intensifying transformation process. Proponents of mobilities argue that populations, information, hegemony, capital and thoughts are on the incessant move, forming and reforming networks, transforming and retransforming the physical, socio-cultural, economic and political physiognomies of places.

Tourism Driven Global Mobilities

Countries are looking at turning tourism, the key driver of their socio-economic progress (UNWTO, 2016). Investing in tourism related and basic infrastructure has been the key focus in facilitating smoother functioning of the industry in their respective countries. International tourist arrivals increased from 25 million in 1950 to 1186 million in 2015. It reached 278 million by 1980 over 30 years. Within next three decades the figure reached up to 1186 million almost tripling 1980's global crossovers of international tourists. On average 700,000 to 900,000 passengers flying over the globe at any given time that signifies the magnitude of contemporary global human mobilities. Most importantly tourism drives majority of such mobilities. As global tourist mobility is growing financial flows are diverting around the globe through tourism and related channels and above figures are just direct receipts from the industry while actual financial movements of tourism and related business is unimaginable in global economy. Investment flows, indirect generation of incomes and multiplication of tourism related financial flows at local levels are yet to remain understand which actually could be hundred times larger than direct receipts. Hence, global capital mobility and financial flaws are influenced in a greater deal by tourism and its related activities according to UNWTO (2015). Asian region leads annual rate of growth attracting more and more tourists from all over the world. Sri Lanka is a tropical island in the region boasted 18 percent annual growth rate in 2015 given its peaceful environment for free flow of tourists around The Island (SLTDA, 2016). The country is enjoying double digit growth from 2010 and this (2015) was the sixth consecutive year that showed one of the fasted growing rate in the world. Underpinned by the annual aggregate global tourism growth of 3-4 percent the UNWTO (2015) forecasts the figure would reach 1800 million by 2030. In other words 26 percent of the global population would be on the move for tourism and related activities by another one and a half decades time. Moreover, global trends of technological, socio-economic and geopolitical mobilities are expected to shape the industry functioning in a great deal as UNWTO (2015) projects.

The mobilities discourse brings social science with novel areas of focus that have traditionally had oversight by the scientific research community. Particularly, the theoretical positioning and the methodological choices it proposes are of vitally importance to see social science from a different angle (Hall, 2005). Mobilities encompass not just the movement as from the raw meaning of the word but vast array of global and local level encounters such as the whole movements process of space and time, technological and communicative advancements and respective evolvements, practices od dwellings, socio-cultural and political relations and geopolitical undertakings. Continuous process of making and transforming spaces in time in general is referred to moieties in broader sense (Hannam

et al., 2006). Literature proposes five main types of mobilities that organize the social life across time and space by forming and reforming its territories and are discussed below. The corporeal travel of people for work, leisure, family life, pleasure, migration and escape, organized in terms of contrasting time–space modalities (from daily commuting to once-in-a-lifetime exile). The physical movement of objects to producers, consumers and retailers, the sending and receiving of presents and souvenirs, as well as the assembly and (re)configuration of people, objects and spaces as part of dwelling and place-making. Imaginative travel effected through talk, but also images of places and peoples appearing on and moving across multiple print and visual media. Virtual travel often in real time enables presence and action at a distance, transcending geographical and social. Communicative travel occurs through person-to-person contact via embodied conduct, messages, texts, postcards, letters, telegraph, telephone, fax and mobile (Burns, & Novelli, 2008).

Development of local spaces as attractive tourist destinations opens them to various forms of global mobilities. In a broader sense, the most remote community has no exception from the ongoing move. Velocity of mobilities in daily lives shows rapid increase and this is quoted by Sheller and Urry (2006), "the entire world seems to be on the move" (p. 207). Concurrent technological, socio-economic and geopolitical moves signify the emerging mobilities that would lead this century (Dennis & Urry, 2009). Advancements in technological innovations empower the means of mobilities in terms of marine cruising, air cruising, highways and automobile technologies, enhanced rail networks, telecommunication progress through fax, e-mail, video conferencing, GPS and remote sensing and so forth (Elliott and Urry, 2010, p. 11). Enhanced technologies of various aspects have drastically facilitated the travel in terms of time. Hence, the socio-physical proximity has contributed to make travel and tourism and daily mobilities while making individual lives a part of move.

Geometric or the absolute distance between locations, temporal distance, economic distance or the cost occurrence in between two places, web or interlocked distance that lies in transport or telecommunication networks, perceived distance which is the established mental maps of travellers between two locations, social distance that represent the differences of social status and classes in the respective locations, cultural distance that denotes the variances of culture prevail at two different locations and perceived power and control distance that is governed through the distance between central location to the peripheral destination in concern (Sharply, 2006). The distances listed above are central to the notion of tourism mobilities since the time and space between locations are driven through such distances that need researchers' attention in comprehending mobilities at tourist destinations.

Theorizing Tourism Driven Mobilities in Postwar Sri Lanka

Sri Lanka curbed the three decades prevailed ethnic and terrorist operations in 2009 and the country is widely opened to aggravating global motions (Biyagamage et al., 2014). Present Island could be regarded as complex network of physical, socio-cultural, informational and geopolitical movements taking place every single second in its space. Post conflict motion of the nation has dramatically been aggravated in all spectrums of concern. For example, highways, airports, and harbors have squeezed time and space, infrastructural changes and rescaling of economic space, communication technology and digitalization, capital, investments and financial flows, the international geopolitical threads focusing its harbors and strategic location are significant motions in the concurrent context. Superior accessibility and heightened highway system and modern vehicles allow travellers to reach so many places and travel from point Dondra to point Pedro in a matter of several hours. Newly built second international airport, Colombo-Matara highway have changed daily motion of people as well as tourists making accessibility south and from South to an hour (CBSL, 2016). Spatial restructuring through infrastructural changes in the form of tourism development is rampant even in remote rural areas. The physical alterations and spatial restructuring taking place in a rapid phase has eventually influenced the psychological or emotional movements of people in a great deal. Arrival of thousands of domestic and foreign tourists at a small destination for example Sigiriya village on daily basis has

put residents on the move. Tourism driven spatial and temporal rescaling is significant in rural areas of tourist attractiveness (Hannam, 2009).

Urbanization process that opens remote rural structures into mobilized urban spaces alters and descales emotional processes and patterns of individuals on such rural settings. This socio-cultural transformation process has undoubtedly been speedup whiting the post industrialist vagabond lifestyles. Particularly, remote areas been attractive to backpackers and free individual tourists who are more energetic and open to move with local residents at destinations are more powerful in altering their local values. This phenomenon is observable in rural tourist attractions in Sri Lanka where majority of tourists are back packers and stay at local residents homes rather in large hotels allowing them to be more influential over local residents' way of living. Post-colonial Sri Lana has not gone much out of the way of colonial masters in terms of systems of governance and administration, socio-economic regulations and emotional processes of elite groups. Particularly, manufacturing plants, people and their way of thinking, food consumption patterns, technological adoption, travel and tourism marketing approaches and tourism product development such as attractions and hotels, metaphors and images and post independent capital inflows are still in the framework of former colonial ideologies (Sheller, 2004). According to Urry, (2007: p. 269):

Places are economically, politically and culturally produced through the multiple mobilities of people, but also of capital, objects, signs and information moving at rapid yet uneven speed across many borders, only contingently forming stable places.

Neoliberal economic deregulations in the form of physical development, special, temporal, emotional and territorial deregulations of local spaces in the form of tourism development alongside the socio-cultural modifications contribute on large scale to ongoing motions of Islands (Hall, 2005). Economic liberalization and neoliberal economic policies have allowed international economic giants and multinational companies on local soil in the post-colonial development spectrum. Industries such as tourism has attracted much needed foreign direct investments through such liberalizations alongside the liberating of policies of entry and exit barriers to the island. These moves have largely rescaled and descaled the spatial, temporal and emotional character of the country while largely affecting on the socio-cultural values and processes (Lokuhetty et al., 2013). Moreover, urban-rural compositions, sovereignty at individual and state level and spatial character of The Island have largely been modified by former mobility forces. Post-war tourism development context and further liberalizations on development, investment and migration policies have largely dispersed the state power in local affairs.

Tourism has become the fantasy word for everyone in the post war development context while the government has liberalized every possible regulation to encourage tourism related investors in the island (SLTDA, 2015). Tourist arrivals, visa policies and even involvements of tourists during their stay have been largely been facilitated to attract more tourists to the country. This notion shows by the arrival numbers which was below 0.5 million in 2009 becoming fivefold to reach 2.5 million within a short period of six years. Government eagers to make tourism the prime source of foreign exchange earnings in the economy which was at number 6 in 2009. Following former objectives, a massive propaganda to promote Sri Lanka as a tourist destination has been put into operation in global scale. Tourism development and spatial rescaling, land reforms, hotel and touristic facility constructions, tourism related infrastructure development, human resource training and mobilization, local resident empowerments and awareness programs, university degree programs, craft level training courses and many more tourism related operations are recognized and completed to accomplish economic development (SLTDA, 2015). This background provides a fertile ground to examine tourism driven mobilities at local destination level.

Tourism is an industry that largely depends on mobility, geographic location and interconnectivity through areal, maritime ad ground transport networks. Such a sound interconnection would ensure the arrival, large number of foreign and domestic tourists at tourist destinations and allow them to move

around the country efficiently. Transport technologies, reservation systems, destination management systems, hotel management systems allow advanced information and communication technology on rural local soil. Since, tourism is a powerful tool in making, uplifting and promoting places other forms of mobilities such as transport, telecommunication and image building are invertible in tourism development areas. The post war development efforts of Sri Lanka have no exception from this norm and the whole development process has become a network of globally linked mobilities to geographically, culturally and emotionally segregated spaces. Mobilities research should focus on new methodological approaches and theoretical tools to advance the discourse (Hannam et al., 2006). Bærenholdt et al. (2004), postulates that geographic locations of places, people and their practices, technologies and natural settings are interlocked in tourist destinations. However, tourism mobilities literature lacks how such mobilities could be captured which is the key focus of this study.

Residents' Perceived Effects of Tourism

Tourism Driven Mobilities that cause cultural changes in resident communities are invertible. Similarly, the consequences of such mobilities at local tourist destination level eventually become spontaneous which are beyond the control of the residents (Hannam, 2012). However, the tourism stimulated destination mobilities and the local residents 'perceived effects of tourism development inversely related as postulates by Reisinger, (2009). On the contrary, Dredge and Jamal (2013) postulate a relationship between Tourism Driven Mobilities causing cultural change and resident's perceived effects of tourism development. Their study, completed in Gold Coast, Australia which is one of the most mobile tourist destinations, proposed the variables are interconnected. However, they did not identify the relationship's directions through an empirical study which need further examination. According to Hannam et al; (2006), intensifying mobilities at tourist destinations transform not only the people, but also the mundane of the immobile groups such as residents of a tourist destination and their socio-cultural values. Hence both the community and their socio-cultural values are on the move as informed by tourism driven mobilities at remote destination. They argued that there is a strong association between Tourism Driven Mobilities causing cultural change and residents' perceived effects of tourism development. Further, this association is continuously modified through the evolving mobilities at local and global level. Yet, the existing relationships need further examination through empirical studies to advance the social theory (Hannam et al., 2006). On the contrary, Ranasinghe (2016) in his comprehensive studies in Sri Lanka observes a positive relationship between Tourism Driven Mobilities and residents' perceived effects of tourism development.

METHODOLOGY

Item Generation and Questionnaire Development

Key literature pertaining to item generation were of Urry (2009), Bauman (2000), and Dredge and Hales (2012). Dredge and Jamal (2013) concluded one of the significant empirical studies on TDM in Gold Coast-Australia, entailing various forms of TDM and found strongly close to our study. Governance, destination management and changing identities of destinations' residents were adopted from the studies conducted by Mavric and Urry, (2009), Bauman (2000), and Hultman and Hall (2012). Spatial restructuring was elaborated by Burns and Novelli, (2008); Sheller, (2009) and adopted from their studies. Items relevant to image, information, communication and knowledge, virtual mobilities, migration and transportation and economic reformation were adopted from the studies of Mavric and Urry, (2009); Dredge (2010); Lund-Durlacher and Dimanche (2013); and Sheller and Urry (2006). Churchill (1979) and Rossiter (2002) postulate scale development process employing formative measures. To minimize limitations and maximize strengths of afore mentioned procedures we combined both approaches and followed standard techniques particularized in both postulations. Sound item generation was conducted to ensure the subjects are measured in their factual

forms. Exploratory and confirmatory factor analyses were performed as appropriate at each stage to craft the final scale with the help of SPSS 23.

Before developing the self-administered questionnaire, 27 in-depth interviews were conducted to explore the discourse of TDM from the perspectives of tourism academics, public and private tourism industry officials and community leaders. Based on the literature survey and the findings of the above analysis initial items were proposed and were validated through a group of seven tourism professors and tourism industry professionals through email. Final questionnaire with forty-three statements relevant to various forms of tourism driven mobilities was fielded on a seven point Likert scale (1=strongly disagree, 7= strongly agree) to capture residents level of agreement. The detailed data collection and treatment procedures are discussed in the subsequent sections of this paper. Subsequently, perceived spatial and temporal alterations driven by tourism were traced to run exploratory and confirmatory factor analysis.

ANALYSIS AND SCALE DEVELOPMENT

Demographic Profile of Respondents

Table 1 illustrates the demographic profile of respondents of this study. Final stage of the survey yielded 791 local residents of Dambulla DSD who were resided in Dambulla, Kandalama, Inamaluwa, Sigirya and Kimbissa GSDs. Of the total 50.4 percent were male while balance 49.6 percent was females. Majority of the sample are from middle age category and according to table nearly 50 percent respondents are in the age group of 28 to 47 years. Another 20 percent of respondents were fitting to age group 48 to 57. Nearly 35 percent of local residents were single while 46.8 percent of them were married. Table illustrates that a 20 percent is educated up to grade 8 only. Another 28 percent were educated up to G.C.E. Ordinary Level while 16 percent completed their G.C.E. Advanced Level. 10 percent of the sample is graduates. Majority of respondents belong to middle or lower-income category with a 29 percent from Rs. 30,001 to 45,000 monthly income group. However, upper income group also shows a considerable number representing 37 percent from the total. 16.7 percent of respondents were professionals while another 25 percent were self-employed. Farmers represented an 18 percent of total sample. 66.3 percent of the total was Sinhalese while 22.4 percent residents were Tamils. Muslims represented 9.4 percentage of the sample. As per the religion 58.5 were Buddhists while 17.3 and 14.8 were Hindus and Christians respectively. The balance 9.4 was Islam as indicated in Table 1.

SCALE DEVELOPMENT PROCESS

Crafting Initial Scale

In order to construct items for the development scale we defined tourism driven mobilities based on the review of literature. Consequently, Tourism Driven Mobilities Scale (TDMS) measures spatial and temporal alterations at tourist destinations, which are caused directly or indirectly by tourism development at the respective destination which certainly will enhance mobilities literature. The TDMS consists of concrete object that is the tourist destination and causing attributes (items) and entity being the local residents of the destination as has been claimed by Rossiter (2002). As previous researchers we also have employed a multi-source approach to generate items of the development of a scale of tourism driven mobilities construct. Firstly, we identified the existing dimensions of tourism driven mobilities (TDM) and then countrywide in-depth interviews were conducted with tourism stakeholders. The outcomes of both literature and field survey yielded 48 items and they were validated through industry experts and tourism professors to ensure phase and content validity of items (Rossiter, 2002; Walsh & Beatty, 2007) yielding 43 item questionnaire for fielding.

The experts were given TDM definition together with the list of proposed items and were asked to rate each item's importance in TDMS. A five-point Likert scale 1=unimportant to 5= very important

Table 1. Demographic profile of respondents (n=791)

Variable	Group	Count	%	Variable	Group	Count	%
Gender	Male	399	50.4	Monthly income Rs. (1 USD = 152 LKR in 2017)	below 15000	100	12.6
	Female	392	49.6		15001-30000	168	21.2
Age (Years)	18-27	70	8.8		30001-45000	230	29.1
	28-37	192	24.3		45001-60000	105	13.3
	38-47	194	24.5		60001-75000	102	12.9
	48-57	157	19.8		above 75001	86	10.9
	58-67	136	17.2	Occupation	Student	47	5.9
	above 67	42	5.3		Professional	132	16.7
Marital Status	Single	276	34.9		Govt. Officer	79	10
	Married	370	46.8		Businessman	84	10.6
	Divorced	44	5.6		Self-employed	200	25.3
	Widowed	100	12.6		Farmer	142	18
Education	None	26	2		Laborer	66	8.3
	<Grade 8	206	20		Retired	24	3
	Ordinary Level	286	28		Unemployed	17	2.1
	Advanced Level	167	16	Religion	Buddhist	431	58.5
	Graduate	105	10		Christian	133	14.8
Ethnicity	Sinhala	485	66.3		Islam	74	9.4
	Tamil	217	22.4		Hindu	153	17.3
	Muslim	74	9.4	-	-	-	-
	Other	15	1.9	-	-	-	-

Note: The demographic information presented here are of the sample of third stage survey which was conducted for final analysis of study.

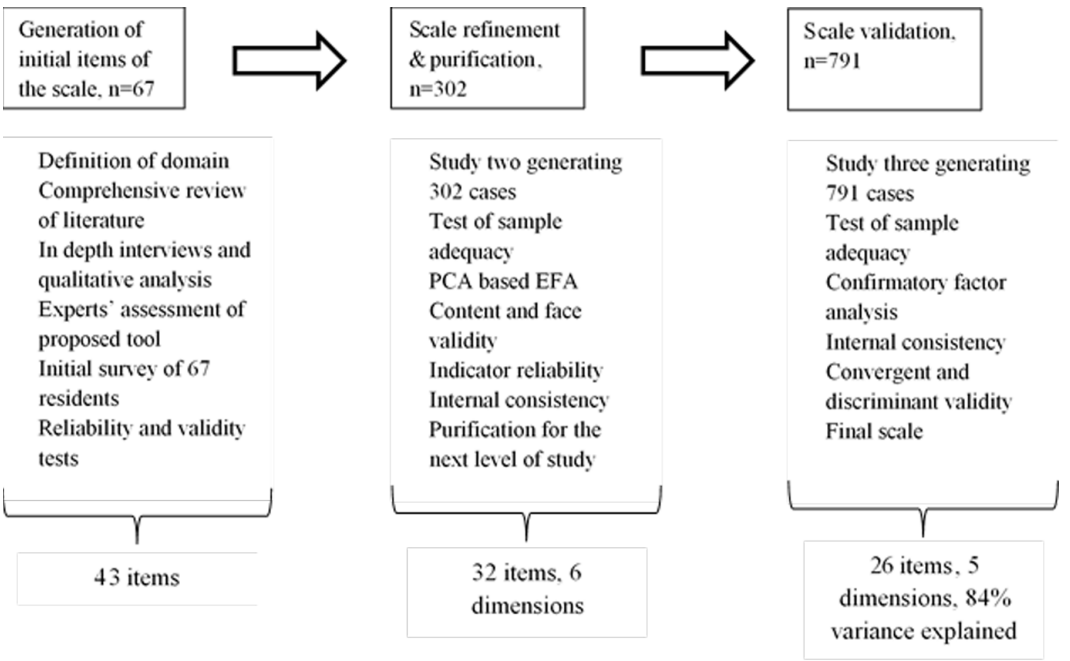
was employed to evaluate initial 48 items and was reduced to 41 items. Content validity of the items was calculated based on mean values of scores of expert judges and considered mean values of 3 or higher for an item to be qualified in the next stage. Face validity of items were ensured by considering the items' average of rating and 1=unimportant and 2=little important items were removed from the scale. Seven items were eliminated being their rating in the rejection range yielding 41 item scale. In order to source the proposed scale from experts they were asked to propose appropriate items that could be included in the scale and if an item is mentioned minimum of three experts independently it was considered to be included in the scale. According to Churchill, (1979) the whole idea of item generation process is to "develop a set of items which tap each of the dimensions of the construct" and this was facilitated by inclusion of two more commonly proposed items by the experts.

According to following illustration the initial scale was comprised of 43 items and it was field tested with a sample of 67 residents in Dambulla and Sigiriya UNESCO world heritage tourism zones in December 2015. The scale refinement and purification were accomplished through a sample of 302 residents of the same tourism zones in December 2016 to March 2017 that generated 32 items with 6 dimensions. Final corroboration was completed through a sample of 791 from May to July 2017 at the same tourism zone. Confirmatory factor analysis succeeded 26 items with 5 dimensions and following figure summarizes the scale development and validation process in detail.

Scale Development Process

See Figure 1 for the scale of the development process.

Figure 1. Scale development process



Scale Refinement and Purification

The scale purification and refinement were accomplished through a sample of 302 local residents in the Dambulla and Sigiriya UNESCO world tourism zones which are under rapid development since early 80's. Norusis (2005) postulates a reliable and fairly large sample should be over 300 cases and our scale refinement and purification study adhering to this rule collected 302 cases. The sample to item ratio is 7 to 1 which is acceptable as per Gorsuch (1983). Statistical assumptions for Exploratory Factor Analysis (EFA) were verified to make sure data is appropriate. Accordingly, KaisereMeyereOlkin (KMO) and Bartlett's Test of Sphericity for sampling adequacy were performed. KaisereMeyereOlkin value is 0.802 and is above the threshold value of 0.5. Bartlett's Test of Sphericity for sampling adequacy was significant at 0.000 ($\alpha < 0.05$) and the data were appropriate for EFA.

Using IBM SPSS statistical package (Version, 23) we performed EFA with Varimax rotation. Factor loadings were unrestricted to obtain the maximum number of loadings for the scale. Following the Kaisere's criterion we retained all items with an Eigen value of 1 or above and the EFA yielded 6 factors with 32 items explaining 84 percent of variance of TDM. Eleven items showed poor loading (<0.50) and were removed from the scale after EFA. However, to ensure content and phase validity of the scale the candidates for elimination were reported to experts and their consent was sought before removing the items. The Cronbach alpha for each item was between 0.87 and 0.98 showed strong internal consistency of the measurement scale. Six factors derived from EFA were named as; restructuring of economic space, transport and telecommunication infrastructure, multiplicity of destination governance, migration and changing communal values and varying image and identity based on the literature.

Scale Validation

Scale validation was performed in order to establish discriminant, predictive, convergent and nomological validity of newly developed five-dimensional tourism driven mobilities scale (TDMS). The procedures followed in this step were similar to the scale purification stage. However, sample size and analytical approach which is Confirmatory Factor Analysis (CFA) are new in scale validation stage. A sample of 791 respondents was derived from the same tourism zone which comprised 48 percent male and 52 female that is in consistent with national demographic statistics of Sri Lanka. Item to sample ratio was 20 to 1 which is well above the threshold of 5 to 1 as illustrated above. KMO and Bartlett's Test of Sphericity were in consistent with the standard requirements suggesting data is appropriate for CFA.

CFA based on Varimax rotation was performed to validate five-dimensional tourism driven mobilities scale. Out of 32 items a total of 26 items were retained given their higher loadings while 6 were candidates for removal from the scale for which we have seek the experts' judgment to ensure phase and content validity of the scale. Remaining 26 items representing five factors collectively explained a variance of 84 percent of tourism driven mobilities. Cronbach alpha for each factor was in the range of 0.86 to 0.97 showing acceptable internal consistency of the scale. CFA output is illustrated in the column two of Table 2 (note, only extracted factors are reported).

Table 2 illustrates and compare the results of scale refinement and validation steps (EFA and CFA) performed with 302 and 791 respondents respectively. It also presents Cronbach alpha, AVE and CR values for CFA. Variance Inflation Factor (VIF) was computed to evaluate the multicollinearity of items. The VIF values range from 1.24 to 2.33 while the cutoff range for VIF is between 0.47 and 0.72. Commonly accepted standard for VIF cutoff values is <3 and the test results indicates 1.2 and 2.3 which are in the safe region conforming to multicollinearity test standards.

Test of Scale Validity

Average Variance Extracted (AVE) is an indicator of convergent validity and the AVE > 0.50 represents acceptable validity while Construct Reliability (CR) threshold is CR>0.60. As illustrated in Table 2 all AVE loadings are above 0.50 and show the scale's convergent validity. AVE values range between "0.72 to 0.90". Equally, CR for our scale ranges from 0.90 to 0.97 which are conformed to 0.60 standard except one case as illustrated in the Table 2. To validate the scale further we performed discriminate validity test comparing AVE with Squared Inter-construct Correlations (SIC). General norm for AVE and SIC comparison is all AVE values should be greater than SIC values. Accordingly, our scale shows tolerable discriminant validity as illustrated in Table 3.

DISCUSSION

Key objective of this study is to identify and purify items and then to validate to develop a psychometrically sound scale to capture TDM which is a long absence in this discourse. As illustrated in the Figure 1 the procedures followed for this were sound and accepted norms while the crafted scale found to be strong in its reliability, face and construct validity. Convergent validity is defined as the extent to which the scale correlates with other similar scales develop to measure same construct according to Churchill (1979). It should specially be mentioned that to test the convergent validity of our scale a similar scale is not available up to now in mobilities literature. Hence, convergent validity should further be verified in future studies and the scale we propose will be a new direction for such undertakings.

Scale proposed five dimensions to measure TDM with a total of twenty-six items. Five dimensions are; multiplicity of destination governance (6 items), varying image and identity (6 items), migration and changing communal values (5 items), transport & telecommunication infrastructure (5 items), restructuring of economic space (4 items). Existing literature on mobilities and tourist destination

Table 2. PCA (EFA) and CFA outcomes

Factor/Item	EFA/n=302	CFA/n=791
Factor 1: Multiplicity of destination governance (6)	α=.87	α=.89, AVE=.87, CR=.97
Presence of international companies in tourism business	.928	.924
NGO's role in tourism is increasing	.901	.889
Tourism is totally relying on private enterprises	.893	.896
The government control over tourism development	.833	.821
The tourism development is uneven in different locations	.727	.697
Involvement of private sector in tourism is growing	.693	.690
Factor 2: Varying image and identity (6)	α=.92	α=.94, AVE=.83, CR=.96
Social media networks change image linking into global space	.947	.958
The importance of local residents in tourism	.911	.920
Changing image of the area as a tourist destination	.827	.812
The changing phase of socio-cultural life of residents	.701	.693
Residents' image and identity are changed by tourism	.678	.664
Level of involvement of residents in tourism	.672	.659
Factor 3: Migration and changing communal values (5)	α=.96	α=.92, AVE=.72, CR=.90
Changing community character due to immigrants	.926	.954
Phase of movement of community members	.823	.841
Changing values of residents due to immigrants	.779	.765
Changing traditional rural community to a modern community	.660	.657
Transient population in the community	.606	.614
Factor 4: Transport & telecommunication infrastructure (5)	α=.98	α=.96, AVE=.90, CR=.96
Government policies to improve tourism infrastructure	.904	.889
Exposure to modern telecommunication services	.802	.765
ICT effects on the character of local community	.705	.703
The improved ease of access to the area	.679	.672
No barriers for transport of people and goods to this area	.662	.659
Factor 5: Restructuring of economic space (4)	α=.89	α=.87, AVE=.84, CR=.96
Free trade opportunities in tourism	.944	.936
Flow of new investments into destinations	.813	.783
TD and marketing are driven by free market policies	.709	.724
De-regulation of the economic activities	.694	.685

Note: Column 2 illustrates the Cronbach alpha values of second study. The items excluded due to poor loading are not illustrated in the table considering space restrictions.

Table 3. Reliability and validity measures, n=791

Factor	Cronbach Alpha > .70	AVE > .50	CR > .60	Squared Inter-Construct Correlations (SIC)			
1. Multiplicity of destination governance	.89	.87	.97		.54	.42	.38
2. Varying image and identity	.94	.83	.96	.56		.33	.39
3. Migration and changing communal values	.92	.72	.90	.38	.42		.43
4. Transport & telecommunication infrastructure	.96	.90	.96	.51	.49	.39	.56
5. Restructuring of economic space	.87	.84	.96	.49	.38	.54	

Note: Reliability and validity statistics of Confirmatory Factor Analysis are illustrated.
SIC is computed by the squaring Kendall's correlations.

discourses were comprehensively revived and two prior-qualitative studies were conducted in two different contexts to identify the individual items and constructs while experts' judgments and guiding were constantly followed to craft the scale. Five factors identified above and the items comprised in each dimension (Table 2) are refracted in concurrent tourism and mobilities literature. For example, pluralization of destination governance is one of the key stimuli of tourist destinations for which we have identified six items.

Rotated factor loadings yielded 23.24 percent for multiplicity of destination governance, 19.46 for varying image and identity, 15.03 for migration and changing communal values, 14.15 percent for transport & telecommunication infrastructure and 12.16 percent for restructuring of economic space respectively. A total variance of 84.05 percent of TDM is explained by the scale. Pluralized destination governance played a significant role in TDM representing higher factor loadings for presence of international organizations (0.924), role of NGO's (0.889) and reliance of tourism on private enterprises (0.896) etc. This finding is in consistent with dredge and Jamal (2013) who claim that plural tourist destination governance is a significant contributor for tourism driven mobilities. This might be due to rapid increase of various organizations in local soil amidst existing conducive environment for tourism and related business activities.

Second most effective factor for TDM is varying image and identity that comprised the changing image due to social media links (0.958), significance of local residents in tourism (0.920), changing image of the destination itself (0.812), etc. The individual items indicate that individuals' as well as destinations' image and identity are on the move as postulate by Hannam (2014) and Bauman (2009). Hence, one key component of TDM is the image of the destination and the identity of residents. Thirdly, migration and changing communal values contributed 15.03 percent of variance of TDM that included changing community character due to immigrants (0.954), phase of movement of community members (0.841), changing values of residents due to immigrants (0.765) etc. Migration has significantly affected mobilities as claim by Bell and Ward (2000); Tseng (2000); and Williams and Hall (2002). Correspondingly, migration has become a key driver of TDM which might cause through migrant employees and even long-stayed tourists in destinations.

Transport and telecommunication infrastructure accounts for 14.15 variance of TDM in which government policies to improve infrastructure (0.889), exposure to modern telecommunication services (0.765), effects of ICT on the character of the community (0.703) were prominent. Phase of infrastructure development in the areas through government policies seems intensive. Moreover, telecommunication infrastructure and well as ICT influence over the community indicate intensive mobilities which are driven by tourism and related developments. Intensive infrastructure development phase in postwar scenario has challenged resident communities involving them in the process of global move as postulate by Dredger and Jamal (2013); Hannam (2009, 2014); Urry (2007). Finally, restructuring of economic space contributed to explain 12.16 percent of total variance of TDM in which free trade opportunities for tourism (0.936), flow of new investments into destination (0.783), free market driven tourism development and promotion (0.724) were prominent contributors. Outcomes indicate that economic character of destination is drastically altered through TDM particularly opening free market opportunities for locals. Hence, TDM is caused due to economic restructuring as claimed by Sheller and Duval (2004) and Sheller (2009) in their extensive studies on TDM in Caribbean islands.

Correspondingly, varying image and identity of local residents and destinations themselves are prominent topics of TDM studies (Cartier et al., 2005; Coles, 2006 & Hall, 2005b). Particularly, the swift explosion of ICT at remote destinations have influenced in changing community's character and image (Ranasinghe, 2016). Migration being one of the major studies and stimuli in tourism shows a significant contributor for TDM. Studies conducted by Hannam (2009); Hui (2009); Lund et al. (2013); Ranasinghe (2016) and Rickly (2016) clearly showed that tourism and its impacts are widely influenced by migrants and destination character itself is formed and reformed by immigrants. Five individual items identified showed the intensity, frequency and phase of migration.

Transport and telecommunication infrastructure have long been identified as mobility triggers and at tourist destination level they play a significant role in transformation process (Su et al., 2014; Tribe, 2010 & Urry, 2007; Xiang & Tussyadiah 2014). Moreover, study conducted as one of the prior studies for this research showed how intensive the ICT and transport mobilities in making far distance spaces on the move (Ranasinghe, 2017). Individual items identified in the scale proposed are representative of transport infrastructure and ICT infrastructure that ease destinations' move with global processes. Finally, economic restructuring process that takes place due to tourism is one of the five dimensions identified in our scale. The dimension consists of four individual items including free trade, investments and deregulations of economic policies. The findings are in consistent with propositions put forward by Wang and Chen (2015); Xiang and Tussyadiah (2014) and Tribe and Xiao (2011).

Henceforth, TDM scale proposed in this study has followed standard procedures and has reflected strong statistical evidence for its robustness. Moreover, findings are in consistent with some of significant recent findings of tourism and mobilities thesis. Consequently, scale could be further tested and verified in different contexts to advance thesis of TDM. Lund-Durlacher (2013) postulated that discourse of tourism needs to be researched in the light of mobilities for which novel methodological approaches should be developed. Moreover, based on her comprehensive study on Sri Lanka and tourism mobilities Gerharz (2014) postulates the changing cultural character in qualitative means. Our findings are in consistent with her findings and further are proved through quantitative approaches (Peries, 2014).

CONCLUSION

Study of TDM is an emerging discourse in tourism literature which mainly has entrusted on conceptual and theoretical work. Measuring TDM in quantitative terms is a challenge due to absence of a pretested scale. This study focused on developing, calibrating and validating a scale to measure TDM. Scale represented key dimensions and items identified in comprehensive review of literature and confirmed through the observations of two pre-qualitative enquiries. Moreover, whole scale development process was administered through constant consultation and communication with subject experts of tourism and mobility disciplines who have years of experience as academics, researchers and industry consultants.

Scale to measure TDM was the key theoretical contribution of this study. Comprehensive review of literature and continuous consultation of subject experts together with standard procedures followed endorsed us to break the ground stone. Tool was statistically robust and nomologically adequate. It implied pluralized destination governance played a significant role in TDM inferring the influence of hegemony over mobilities. Peries (2014) claims that postwar tourism development in northern region is an invasion by southern hegemony and this notion at macro level was implied though our scale and was proved by statistical evidence. This is a novel theoretical inference in mobilities research. Complex governance structure (Dredge & Jamal 2013), extensive economic transformations and growing telecommunication infrastructure make destinations essential parts of ongoing global move (Duval 2004; Sheller 2009). Proposed scale indicated transport and telecommunication infrastructure and restructuring of economic space are key dimensions of TDM. Migration and changing communal values were also a significant contributor. Findings propose existing theory of mobilities that mobilities at tourist destination level are advocated through communication and infrastructure, immigration and economic reformations. In other words, the notion of mobilities is revolving around capital adding the existing mobility norm of space and time. Proposed scale which comprised five dimensions and 26 items itself is a theoretical novelty in the discourse of mobilities.

Multiplicity of destination governance is explained through presence of international organizations, role of NGOs, reliance on private enterprises for tourism. These findings encourage the tourism destination development agencies to concentrate on such factors to optimize inclusive tourism development. Contribution of social media, significance of local residents in tourism, changing image

of the destination represented varying image and identity in the scale. These factors are critically important in shaping destination image which is directly linked with tourism destination marketing and promotion. Changing community character due to immigrants, phase of movements of community members, changing values of residents where are significant in characterizing migration and changing communal values. These findings indicate immigration as an important factor that shape community character and values. Thus, migrant employees and long-staying tourists influence in a great deal at a destination as illustrated in this scale. Government policy on infrastructure development, modern telecommunication services, and effects of ICT on community devised the scale while indicating TDM comes widely with telecommunication related infrastructure. Thus, apart from the theoretical significance, the proposed scale is noteworthy in destination marketing, policy planning on image building in a post-conflict development stage and in developing inclusive tourist destinations for community empowerment.

One limitation in this study was the absence of similar previous work. This limited the establishment of convergent validity of the scale. Hence, there is a strong need for further validation of TDMS by implanting it in other community contexts to establish and test its convergent validity. Therefore, future researchers should continue to research on this area to further confirm generalizability of the proposed scale. Researchers have followed various techniques to ensure reliability and validity of the process. However, this being the first of its kind in developing a scale to measure TDM, it could have lack of previous work. Conversely, future researchers can make this study a base to develop more comprehensive scales to measure TDM expanding available knowledge of this discourse. Moreover, our research site was a tourist destination which was under rapid development and is in its developing stage. TDM could also be tested in matured tourist destinations to compare these findings.

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