

## **Constraints to Jogging Trail Users' Behavior:**

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**Abstract:** *Performing a physical activity on a regular basis will help to improve overall health and fitness, as well as to decrease the risk for many chronic diseases. There have been many efforts to increase physical activity which mostly focused on the individual. Jogging is the most commonly reported and the most accessible form of leisure time physical activity among general public. However little is known about the factors that influence Jogging as leisure time physical activity. The main purpose of this study was to identify Intrapersonal, Interpersonal and Structural constraints that effect on jogging trail users' behavior. Primary data were collected using semi-structured interviews and analyzed the data using Atlas ti 7.0.software. The study identified that intrapersonal constraints such as motivation to walk, knowledge about walking and physical activity, physical fitness, mental fitness, emotions on walking and time priority are mainly influenced on jogging trail users' behavior. Interpersonal constraints such as social support and advice, community norms, social interaction, and social network directly affect g for jogging trail users' behavior and finally Structural constraints such as safety and maintenance of the trail, natural environment, Trail location, cleanliness, amenity place characteristics and accessibility that straightly affect the Jogging trail users' behavior.*

**Key words:** *Leisure Constraints, Intrapersonal Constraints, Interpersonal Constraints, Structural Constraints*

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### **I. Introduction**

Historical evidence says that the jogging was recommended for clergy by Dr. Kumarabachcha the personal doctor of Lord Buddha for maintaining physical fitness of monks in 2500 years ago. The Lord Buddha approved the suggestion made by Dr. Kumarabachcha and added some meditation part along with jogging activities (Cullawaggapali Part (2), 1983, [1]). Moreover, the concept that leisure and recreation are beneficial goes back to Aristotle, who viewed leisure as promoting contemplation, improved thinking, and excellence of the mind Driver, Brown & Peterson (1991) cited by (Bright 2004, [2]), Pröbstl (2010), indicated that social functions are increasingly recognized and include not only recreation, but also a wide range of benefits such as health, well-being and general quality of life. Cited by (Fredman 2012, [3]), Driver, B.; Brown, P. (1978) The consumption of outdoor recreation products and services has long been viewed as the opportunity to engage in a preferred activity in a certain place that provides the settings required to gain a desired experience, cited by (Fredman 2012, [3]), The effects derived from outdoor recreation are universally positive and beneficial to society Moore, R.L., Driver, B.L (2005) cited by (Fredman 2012, [3]).

#### **1.1 Constraints**

In modern era, Leisure constraints have been the focus of leisure researchers and practitioners since the last three decades. Constraints can be described as "anything that inhibits people's ability to participate in leisure activities, to spend more time doing so, to take advantage of leisure services, or to achieve a desired level of satisfaction"(Jackson 1988, [4]). Constraints have been defined as factors that limit or block participation in leisure, or preferences for participation in specific activities (Jackson 1991) cited by (Balaska & Kouthouris 2014, [5]). Understanding constraints helps managers and researchers understand other facets of recreation and leisure, including motivations, conflict, and satisfaction (Jackson 2000), which in turn improves the overall quality of services cited by (Covelli 2006, [6]). Besides that understanding leisure constraints is important since leisure constraints block the leisure participation and lead to latent demand (Crawford 1987, [7]). There are three dimensions in leisure constraints viz. intrapersonal constraints, interpersonal constraints and structural constraints. Crawford (1987) suggests that intrapersonal constraints fit with the definition of the psychological mediators, cited by (Alexandris 2001, [8]) While lack of partners are interpersonal constraints. (Balaska & Kouthouris 2014, [5]) and structural constraints consisted of political, economic, socio-cultural, ecological and legal constraints (Covelli 2006, [6]).

The dimension of intrapersonal constraints is entailed skills(Bright 2004, [2]); (Jackson 1988, [4]); disability (Henderson 1995, [9]); (Schleien1996, [10]); (Bedini 1991, [11]),(Lindstrom 2001, [12]) ability, health and knowledge(Jackson 1988, [4]), illness (Lindstrom 2001, [12]); (Alexandris 1997, [13]). While the dimension of interpersonal constraints cause partners(Balaska 2014, [5]);(Alexandris 1997, [13]), lower

socioeconomic groups (Lindstrom 2001, [12]), the Dimension of structural constraints is involved facilities and transportation (Jackson 1988, [4]), (Lindstrom 2001, [12]); time (Bright 2004, [2]); (Jackson 1988, [4]); (McGuire 1986, [14]); (Searle 1985, [14]); (Scott 2002, [16]), (Godbey 2005, [16]), financial constraints (Bright 2004, [2]); (Jackson 1988, [4]); (Jackson 1993, [18]); (Lindstrom 2001, [12]), marital status (Gratton 2000, [18]); (Downward 2009, [20]); (Carroll 1997, [21]), cultural reasons (Covelli et al. 2006, [6])

Besides understanding the barriers for leisure constraints, researchers in the leisure industry have made suggestions for overcoming the same. Accordingly (Lindstrom et al. 2001, [12]), suggested that the improvements of the physical environment, physical exercise in groups instead of individuals, as well as community and workplace policies may promote increased physical activity in a population. In addition to that (Balaska & Kouthouris 2014, [5]) propose that if participation is to be increased, strategies should be developed for the removal of intrapersonal and interpersonal constraints. Intrapersonal constraints can be removed with the provision of appropriate sport programs that fit with the individual needs of participants (e.g., programs for beginners), the psychological support of participants (e.g., through personal training) and the provision of sport education. Moreover, lack of partners' related constraints can be removed with the promotion of the social aspect of participation, through group sports, celebrations, social gatherings and parties (Alexandris 1998, [22]).

## **II. Methods And Materials**

### **2.1 Working definitions**

In order to maintain the consistency and guide the study the researchers set the following working definition for this study. **Constraints:** Factors that are assumed by researchers and perceived or experienced by individuals to inhibit or prohibit participation and full enjoyment of leisure and recreation pursuits. (Bright 2004, [2]). **Intrapersonal:** These include the individual psychological states and attributes that interact with leisure preferences, such as stress, depression, anxiety, religiosity, kin and non-kin reference group attitudes, prior socialization into specific activities, perceived self-skill, and subjective evaluation of the appropriateness and availability of various leisure activities (Crawford et al. 1987, [7]). **Interpersonal constraints:** These include lack of friends and family members to participate in a leisure activity (Crawford et al. 1987, [7]). **Structural constraints:** include family-cycle stage, family financial resources, season, climate, the schedule of work time, availability of opportunity, and reference group attitudes concerning the appropriateness of certain activities (Crawford et al. 1987, [7]). Intrapersonal, Interpersonal and Structural dimensions of leisure constraints were associated for the development of the semi-structured interviews.

### **2.2 Study area**

The newly built *Kiribathgoda-Dalupitiya Jogging Trail* was selected for the study. The new facility encourages the latent demand of the community towards the outdoor recreation activities. The trail uses for jogging and other outdoor experiences such as graffiti writing (Peiris & Jayantha 2015, [23]), amenity experiences as well.

### **2.3 Sample**

As the study was in qualitative nature, the researchers had to work with a limited sample size. Therefore 30 number of people were selected randomly for interviews.

### **2.4 Data collection**

Data were collected via semi-structured interviews in order to generate rich detailed data and were conducted during the period of 25<sup>th</sup> to 28 of September 2014. The structure of the interviews was designed according to the defined dimensions and the elements of the study. To reach the purpose desired, data were collected through observations and secondary sources as well.

### **2.5 Coding, and categorizing the data**

Transcriptions of interviews, audio files, and other primary data were merged and then coded according to the set definitions of the study by using the Atlas Ti software. At first selected them in to main categories such as intrapersonal, interpersonal and structural constraints and then coded the sub categories accordingly. The sub categories carefully selected as per the elements of the set working definitions.

### **2.6 Conceptualizing**

Data were conceptualized based on the coded data by run the Atlas Ti software and the relationship as per main categories as well as sub categories is shown in the Fig 01.

### III. Results

As per the table 01 showed the basic demographic characteristics of the 30 interviewees of the study. There were 70% of males and 30% of females participated in the survey. 90% of participants were employed according to the survey data. There were only 13.3% of joggers who had either a degree or a diploma and 56.7% of joggers who read their advanced level (A/L) studies while 16.7% of respondents had ordinary level (O/L) education. The table further shows that 23.3% of the sample had income level of Rs.10, 000-30000. 13.3% had 30,000-50,000 income level, 16.7% were in between 50,000-75,000 income level and 43.3% earned more than 75000 Rupees of the sample. 20% of the sample were single while the majority (80%) of joggers were married. The table 2 indicates the factors belongs to intrapersonal, interpersonal and structural constraints as per the previous researchers identified.

**Table 01: Demographic Characteristics of the Respondents**

Characteristics	Total (N=30)
Age	
15-30	16.70%
30-45	40.00%
45-60	33.30%
More than 60	10.00%
Gender	
Male	70.00%
Female	30.00%
Education	
Degree	13.30%
Diploma	13.30%
A/L	56.70%
O/L	16.70%
Family Income LKR	
10,000-30,000	23.30%
30,000-50,000	13.30%
50,000-75,000	16.70%
More than 75,000	43.30%
Marital state	
Married	80.00%
Unmarried	20.00%
Employability	
Yes	90.00%
No	10.00%

**Table 02: Constraints that Influence jogging trail users' behavior**

Intrapersonal Constraints	Interpersonal Constraints	Structural Constraints
Motivation to walk	Social support and advice	Aesthetic and scenery
Knowledge about walking and physical activity	Community norms	Natural environment
Mental fitness	Social interaction	Accessibility
Physical fitness	Social network	Located area and cleanliness
Emotion about walking		Safety and maintenance
		Characteristic of place
		Light

#### 3.1 Intrapersonal Constraints

Some of the factors that affected jogging were individual level factors called intrapersonal constraints which include physical fitness, mental fitness, routine and time priority, knowledge about walking and physical activity, emotion about walking and motivation to walk. Most of the respondents had a positive perception towards walking while engaging some other types of physical activities.

Physical fitness: The participants had a great understanding of the benefits of walking, especially the health related benefits of physical fitness consequences. Some participants were satisfied with the improved quality of life as a result of being physically active.

*“It’s difficult for us to run and play now. I was a sports man. It’s difficult now as those days. Walking is easy. I have sugar (meaning diabetics). Actually it’s easy to control my sugar from exercise rather than using medicine”*

*“It helps me to maintain the activeness and the sugar level of my body. That’s why I do exercise especially.”*

**Mental fitness:** All the respondents mentioned that walking and jogging directly affected mental fitness and mental balance.

*“Doing jog or walk here is a psychological comfort”*

**Routine and time priority:** The respondents specified they had many responsibilities which may limit the time that they can spend on physically active leisure time activities. They identified duties that include family and household, work, community and neighbors, and lastly, oneself. More often the other commitments and responsibilities limited the time they had for themselves. They felt that time for leisure time physical activity must be taken when it is available which was however most likely what they gave up. Although the respondents wanted to spend more time care of themselves in reality they took care of others. They expressed that they are going to pay attention to physical activity such as walking and jogging.

*“We really come here when time available however. Hardly have I missed to come. This has become necessity of our daily life. The time we spend here is not a waste”*

**Knowledge about walking and physical activity:** The participants had a healthier knowledge towards physical activities and walking. In general the respondents' knowledge of physical activity and walking were extensive. The almost all the respondents understood that physical activity as a bodily movement.

*“I was a karate master. So I have a good knowledge about the necessary exercises for the body. Because of that I come here 3-4 days per week.”*

*“Our bad food habits make us patients. We often use quick foods. They are springs of illnesses. I think physical activities like walking and jogging helps to protect from diseases and to maintain and balanced the body”*

Emotion about walking: Almost all the respondents mentioned that they have a good emotion to do physical activities like walking and jogging. They used terms like, “not boring”, “I came here as myself”, “I want to get a change” etc.

*“It is not boring to walk here. It is free for the body. It is good for a defense to come here. This place is excellent to get rid of our regular lives. This place makes me come here for my own necessity.”*

Motivation to walk: most of the respondent expressed that there are some characteristics to motivate them in doing a physical activity. They used to say no traffic, pretty girls, crowded etc. as their motivation factors to visit this place

*“Jogging here completely differs from doing it at a road or a house. There is less protection and much traffics in roads. There is dust in roads. Therefore this place is more protective than a road. And pretty girls come here and they attract us also”*

Through the respondents' answer researchers identified the above intrapersonal constraints that are affecting jogging trail user's behavior.

### 3.2 Interpersonal Constraints

Social environmental factors that called interpersonal constraints included social support and advice, community norms, social interaction and social network etc.

Social support and advice: Most respondents had a need for social support and had mixed feelings about receiving advice from others. In general they expressed that giving advice about being healthy is probably right, though they may not want to hear it. Many respondents talked with others and received encouragements from others are directly affecting to their walking.

*“Both my son and daughter are doctors. They look after us well. They advise me to involve in such exercise. I come here due to their persuasion”*

*“Friends asked me to jog in the jogging track near my place. They advise me to do so because of my huge belly.”*

Social network: Some respondents voiced that they are jogging to build-up social network. Some of them have known about the trail through gossips. Some of them come there with family members while others come alone. It is clear that majority of the participants are doing their physical activities on the trail as a result of social network motives.

*"I come here with my family members. We knew this place through gossips. There is only a little crowd here when we came at first. You can see now crowded in here. I come here even without my family members to meet people."*

Social interaction: mostly people like to be with the same behavior and same class also. This place tent to be a place for people with such attitudes. The researchers' observations and the respondents' expressions demonstrate the place belongings to specific social category.

*"This place and people who come here are really decent. We can associate a large number of respectable people here. It's a trend to society to come such places".*

Community norms: Walking was identified as a behavior that has become more popular within the communities. The respondent expressed that people of all ages, both genders, healthy and unhealthy are willing to be here.

*"There is only a little crowd here when we come at first. You can see now crowd in here"*

### 3.3 Structural Constraints

Structural constraints that influenced walking included accessibility, natural environment, safety and maintain, characteristic of places, aesthetic and scenery, location of area and cleanliness and light etc.

Accessibility: majority of people mentioned that accessibility drives them to doing physical activity. All most all people mentioned accessibility is directly influenced on their jogging experience in this trail. They used terms like Easy, near and access.

*"Because I live nearby. It is only 100 m away from my home"*

Most of people in the sample live within a 1km buffer zone and they do not like to use other physical exercising facilities even though they are closed to their residence. They hate to use main roads for jogging activities because of dusty, noisy and safety. The parking facilities adjoin to the jogging trail influence for participation.

Natural environment: number of respondents mentioned that natural environmental factors directly influence their physical activities. Diverse natural environmental factors induce participants to involve in jogging or walking or other type of physical activities.

Safety and maintenance: Safety was one of a major concerning factor in the sample community. Safety issues that were mentioned, included fear of other people, fear of injury, fear from unattended animals and concern about traffic flow (especially for those who walking on the streets). They used terms "safety" and "well maintain" synonymously.

*"This place is really good. They are well maintained. Because of well maintenance and safety, people are induced to doing physical activity here. And I feel safe as far as no traffic on the road"*

Characteristics of places: The respondents' identified characteristics of walking trail that make it an accessible of exercise almost anyone could do. For example, they felt that walking was a natural activity, it has less strenuous than other types of physical activities, natural features are very important to doing jogging. They used terms like wind, ventilation, no dust, lake in both side, and faunae environment.

*"I really like this place. I can see a lot of beautiful faunae here such as birds and fish. We as urban people can see such things only in places like this. It is a psychological comfort. There is very good ventilation more than other places in the city,"*

**Light:** The respondents felt that there were characteristics of the physical environment surrounding the track that may facilitate or inhibit track use. Lighting conditions on the trail directly affect the trail use.

*"Sola power lighting system is really soft and good for both public and the environment. It is really beautiful here with lights at night. Need to walk from the beginning to end if you want to feel it"*

Through the respondents' answers, researchers identified the above structural constraints that affect the jogging trail user's behavior. The summary of all these factors is shown below in fig. 01.

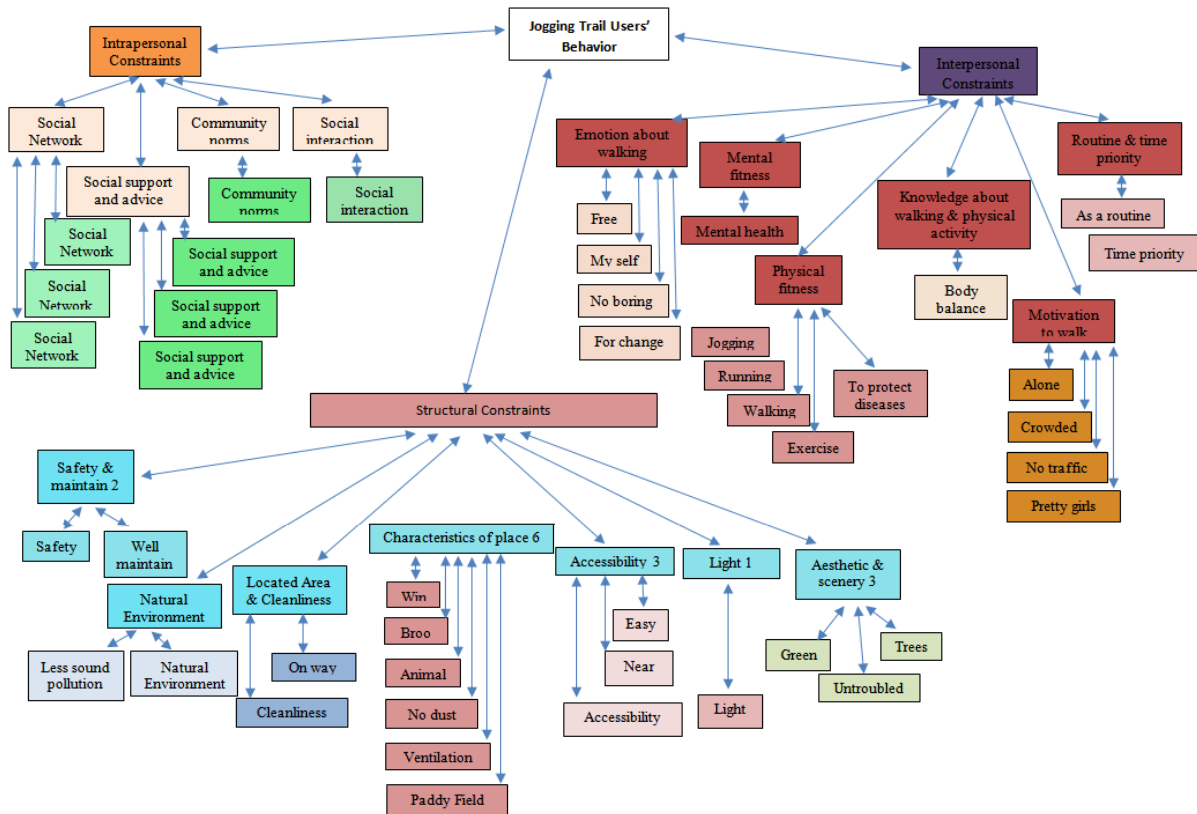


Fig. 01: Summary of the Constrains to Jogging users' behaviour

IV. Conclusion

As documentary facts say jogging has been used since historic era by means of both physical and mental health of mankind. Considering the importance of and contemporary nature of stimulation towards jogging this study was conducted. The present work investigated the influential factors for jogging behavior in qualitative nature. Interview method was employed to understand the original nature of constraints for jogging participation since the constraints may differ on socio-cultural, environmental and other factors. The main factors exposed by previous researchers that lead to block the leisure participation viz. intrapersonal, interpersonal and structural constraints could find in the present study but in deferent phenomenal. More factors could identified with relate to the structural and intrapersonal constraints than the interpersonal constraints. The nature of the study area that confined to jogging activities and it is behave itself as an individual experience may be the reason for lesser factor identification and it leads limitation of the findings. The first footstep towards making a quality jogging trail with satisfied customers that identification of constraints for jogging participation was done by this study. However further investigation should be conducted to recognize the nature of their relationship to jogging trail uses' behavior.

References

- [1] Cullawaggipali Part (2): The forth book in the Vinaya Pitakaya, Democratic Socialist Republican Government of Sri Lanka, Buddhist Cultural Centre, 125, Andwsan road, Nandimala, Dehiwala, Sri Lanka, 1983.
- [2] L. Bright, Perceived Benefits, Constraints, and Negotiations Strategies of Skiers and Snowboarders with Disabilities, University of Florida, 2004.
- [3] P. Fredman, U. Romild, M. Yuan, and D. Wolf-watz, Latent demand and time contextual constraints to outdoor recreation in Sweden, *Forests*, 3(1), 2012, 1–21, <http://doi.org/10.3390/f3010001>.
- [4] E.L. Jackson, Leisure constraints: A survey of past research. *Leis. Sci.*, 1988, 10, 203-215.
- [5] P. Balaska, and C. Kouthouris, Promoting Sport Participation in Greece: Issues and Challenges. *International Journal of Sport Management, Recreation and Tourism*, 13, 2014, 63–84. <http://doi.org/10.5199/ijsmart-1791-874X-13d>.
- [6] E.A. Covelli, R. C. Burns, and A. Graefe, Perceived Constraints by Non-traditional Users on the Mt. Baker-Snoqualmie National Forest, *Northeastern Recreation Research Symposium*, 2006, 422–429. Retrieved from [http://www.nrs.fs.fed.us/pubs/gtr/gtr\\_nrs-p-14/55-covelli-p-14.pdf](http://www.nrs.fs.fed.us/pubs/gtr/gtr_nrs-p-14/55-covelli-p-14.pdf)
- [7] D. W. Crawford, and G. Godbey, Re-conceptualizing barriers to family leisure, *Leisure Sciences*, 9, 1987, 119-127.
- [8] K. Alexandris, Perceived constraints and motivation for recreational sport participation: evaluating their relationship, *International Journal*, (1993), 2001.
- [9] K.A. Henderson, L.A. Bedini, L. Hecht and R. Schuler, Women with physical disabilities and the negotiation of leisure constraints, *Leisure Studies*, 14, 1995, 17-31.

- [10] S. J. Schleien, P.A. Germ, andL. H. McAvoy, Inclusive community leisure: Recommended professional practices and barriers encountered, *Therapeutic Recreation Journal*, 30(4), 1996, 260-273.
- [11] L.A. Bedini, Modern day “freaks”?: The exploitation of people with disabilities, *Therapeutic Recreation Journal*, 25, 1991, 61-70.
- [12] M. Lindstrom, B. S. Hanson, and P. O. Ostergren, Socioeconomic differences in leisure-time physical activity: the role of social participation and social capital in shaping health related behavior, *Social Science & Medicine*, 52, 2001, 441-451.
- [13] K. Alexandris, andB. Carroll, Demographic differences in the perception of constraints on recreational sport participation: results from a study in Greece, *Leisure Studies*, 16, 1997, 107-125.
- [14] F. McGuire, D. Dottavio, andL. O’Leary, Constraints to participation in outdoor recreation across the life span: A nation-wide study of limitors and prohibitors. *Gerontologist*, 26, 1986, 538-544.
- [15] M. Searle, andE. Jackson, Recreation non-participation and barriers to participation: Consideration for the management of recreation delivery systems, *Journal of Park and Recreation Administration*, 3, 1985, 23-25.
- [16] D. Scott, Social roles and leisure constraints, Abstracts from the Canadian Congress on leisure research, In *Proceedings of the Canadian Congress on Leisure Research (CCLR)*, Edmonton, Alberta, Canada, 22–25 May 2002; pp. 104-106.
- [17] G. Godbey, Time as a constraint to leisure. In *Constraints to Leisure*; Jackson, E.L., Ed.; Venture Publishing: State College, PA, USA, 2005; pp. 185-200.
- [18] E.L. Jackson, D.W. Crawford, andG. Godbey, Negotiation of leisure constraints, *Leisure Sciences*, 15, 1993, 1-11.
- [19] C. Gratton, andP. Taylor, *The economics of sport and recreation*, London: E & FN Spon, 2000.
- [20] P. Downward, A. Dawson, andT. Dejonghe, *Economics of sport: theory, evidence and policy*. Oxford: Butterworth-Heinemann, 2009.
- [21] B. Carroll, andK. Alexandris, Perception of constraints and strength of motivation: Their relation to recreational sport participation, *Journal of Leisure Research*, 29, 1997, 279-299.
- [22] K. Alexandris, and B. Carroll, The relationship between selected demographic variables and recreational sport participation in Greece, *International Review for Sociology of Sport*, 33(3), 1998, 291-297.
- [23] D. L. I. H. Peiris, K. Jayantha, A Case Study on Emotion Types of Graffiti Writers in Jogging Paths , Sri Lanka, *IOSR Journal of Humanities and Social Sciences (IOSR-JHSS)*, 20(7), 2015, 63–67, e-ISSN:2279-0837, P-ISSN:2279-0845, [www.iosrjournals.org](http://www.iosrjournals.org).