

# MULTI-STAKEHOLDER PERCEPTIONS ABOUT SUSTAINABLE TOURISM IN GOA: A STRUCTURAL EQUATION MODELING

Carmelita D' Mello\*, Santana Fernandes\*\*, Friedrich M. Zimmermann\*\*\*, Subhash Kizhakanveetil Bhaskaran Pillai\*\*\*\*, Jacob Ganef Pah\*\*\*\*\*

## Abstract

*The state of Goa is a well known and popular mass tourism destination for both domestic and international tourists; and increased awareness about the ill-effects of mass tourism coupled with the economic necessity of encouraging tourism growth, has fuelled stakeholder interest towards sustainable tourism. The vital role that stakeholders play in the development and promotion of sustainable tourism in a destination cannot be overemphasized, yet there seems to be very little concerted involvement by them, in the planning and management of sustainable tourism development of the destination, also appears to be limited research carried out so far. The study aims at bridging this gap by assessing multi-stakeholder perceptions about various aspects about the sustainability of tourism in Goa in an attempt to predict the direction and consequently the strength of their support for the same using Structural Equation Modeling. The results indicate that stakeholder perception about sustainable tourism management, the focus of sustainable tourism and attitude towards sustainable tourism share a high, positive association with sustainable tourism while understanding of sustainability, its economics and the tourism industry and sustainability are positively associated to a moderate extent only. But actual participation in sustainable tourism efforts does not share a significant relationship with sustainable tourism.*

**Keywords:** Multi-stakeholders attitude, Sustainable Tourism, Structural Equation Modeling, Goa

## INTRODUCTION

It is an undisputable and well researched fact that tourism development in any given destination impacts the life styles and habits, the customs and culture, the leisure and spending of the local community both positively and negatively. Increase in employment, both directly and indirectly in the tourism sector, increase in income levels and consequently spending capacity, infrastructure development, increase in leisure and recreational opportunities for locals and tourist use are a few of the well known positive impacts of tourism. Unfortunately, like most phenomena, there is a flip side which accompanies the positives and this is manifested in

terms of the numerous obvious negative impacts of tourism development such as environmental pollution (air, water, land), socio-cultural impacts such as negative changes in culture, traditions and lifestyle patterns of hosts leading to loss of ethnicity, economic impacts such as increase in prices of goods and services, land, accommodations, financial leakages, as well as more insidious changes like migration of labour from traditional occupations and internal rural areas to more tourist centric areas and occupations. Thus, while rural areas remain underdeveloped and to a great extent unexploited, coastal areas experience rapid urbanisation and growth, most often unplanned and irreversible, which ultimately end up destroying the very natural resources that drew visitors to it in the first place (Kristnic et al., 2009).

\* Associate Professor, Department of Commerce, St. Xavier's College of Arts, Science & Commerce, Mapusa, Goa, India. Email: litad@rediffmail.com

\*\* Assistant Professor, Department of Commerce, St. Xavier's College of Arts, Science & Commerce, Mapusa, Goa, India. Email: santanafems@gmail.com

\*\*\* Professor and Director, RCE Graz-Styria: Regional Center of Expertise on Education for Sustainable Development, University of Graz, Graz, Austria. Email: friedrich.zimmermann@uni-graz.at

\*\*\*\* Professor and Dean of the Faculty of Commerce and Management, Goa University, Taleigao Plateau, Goa, India. Email: subhash@unigoa.ac.in

\*\*\*\*\* Deputy Director for Academic Affair Bandung Institute of Tourism Jl. Dr. Setiabudi 186 Bandung 40141, Indonesia. Email: jganef@stp-bandung.ac.id

A community that plans and uses tourism as an alternative means of strengthening its economic development must develop sustainable tourism in order to meet the needs and demands of its resident community; viz.; local residents, entrepreneurs and also the government (Puczko and Ratz, 2000). Sustainable tourism development depends largely on the local residents' attitudes since they form the key stakeholder group involved in critical tourism related decision making, as well as the labour resource base for tourism planning and development in their community. (Park et al., 2010). However, tourism research has, for over three decades focused its attention largely on residents' attitude towards tourism and its consequent support for tourism development primarily along four dimensions viz.; [1] Economic dimension- employment opportunities, tax revenues, additional income (Akis et al., 1996; Dritsakis, 2004; Lee and Chang, 2008); [2] Social dimension - interactions between residents and tourists, education and entertainment of visitors, increase in crime (Akis et al., 1996; Byrd et al., 2009; Dyer et al., 2007; Kang et al., 2008; Kuvan and Akan, 2005); [3] Cultural Dimension - quality of life, conservation of local traditional values, increased cultural recognition – (Jurowski et al., 1997; Yoon et al., 2001; Huttasin, 2008); [4] Environmental dimension - air pollution, sound pollution, crowding, depletion of natural resources (Byrd et al., 2009).

While the host community includes local residents, entrepreneurs, government officials, NGOs etc who are among the key stakeholders in the tourism industry, another key stakeholder is the tourist or the visitor (*guest*) to the destination. Increasingly, visitors to destinations are aware of the problems of mass tourism development and wish to do their part in protecting the destination from the ill effects of mass tourism. Several studies have shown that tourists, who visit a destination and spend their money there, support sustainable tourism with respect to economic, social, cultural and environmental dimensions (Weaver and Lawton, 2004). However, in comparison to the large body of work on residents' perception and attitude towards tourism, relatively little research has been done on tourist attitudes towards sustainable tourism development. Tourism, therefore, is an economic sector which must be approached in a special way due to the interlinking of all the stakeholders involved in tourism activities - both those based in the destination (local residents) and those who travel to such places (visitors) (Castellanos Orgaz, 2013).

So far no research has been carried out with respect to identifying multi-stakeholders perceptions towards sustainable tourism, which makes the study unique and provides valuable inputs on otherwise unexplored area. This study concentrates on the state of Goa as the research location in order to evaluate the perceptions of four stakeholders; viz.; local residents, entrepreneurs, government officials (hosts);

and tourists (guests) towards developing and supporting sustainable tourism. Therefore, the present study fills the gap by adding valuable knowledge, new perspectives and presents possibilities for consideration. The paper offers valuable inputs for different stakeholders of tourism industry; especially the academic institutions, hotels and restaurants, tour operators, government as well as NGO's. This will ultimately leads to empowerment of local residents in the coming years.

## LITERATURE REVIEW

### Sustainability & Sustainable Tourism

Despite the substantial body of empirical and conceptual literature on various aspects of sustainability in recreation and tourism (Clarke, 1997; Collins, 1999; Tubb, 2003; Kelley et al., 2007) there remains “*no widely accepted definition of sustainable tourism*” (Swarbrooke, 1998). Confusion exists both with regard to the precise implications as well as with regard to the specific patterns of resource use implied in the definition of the term (Collins, 1999). The World Travel and Tourism Council (WTTC, 2010) has equated sustainability with “*guaranteed respect*” for local environment, societies and cultures while the attainment of “*triple bottom line*” outcomes (i.e. economic, environmental and socio-cultural sustainability) is now widely evoked (Elkington, 1998).

Recognizing that all tourism entails cost, Weaver (2006) associates “*sustainability with strategic management that strives to minimize the direct and indirect costs of a given activity whilst concurrently maximizing the attendant benefits, both locally and globally.*” This definition of sustainability attempts to promote “*enhancement*” of the *three pillars of sustainability* (social, environmental, and economic) and moves beyond the status-quo definition of the Bruntland Report (1987). Further, with the recognition that costs and benefits of tourism are context dependent, the definition embraces the idea of sustainability as a paradigm with “*strong*” and “*weak*” manifestations (Hunter, 1997).

With respect to tourism, sustainability is differently referred to as “*sustainable tourism*”, “*green tourism*”, “*eco-tourism*”, etc., all having the end goal of achieving long term cooperation among multi-stakeholder groups in promoting tourism while safeguarding the eco-system. Sustainable tourism development is regarded as economically viable, financially profitable, environmentally sustainable and socio-culturally acceptable (WTO, 2002). Thus, all kinds of alternative forms of tourism including green tourism, eco tourism, nature tourism, culture and heritage tourism can apply these principles of sustainability (Harill and Potts, 2003; Stoddard et al., 2008; Chang and Lui, 2009).

## Stakeholders in Sustainable Tourism

With the increasing economic importance of tourism, given the employment it generates and the fact that tourism business activity is conducted in places that belong to local society, these businesses owe society, the natural environment and other elements in the surroundings, a certain responsibility, which is where stakeholder theory comes into play (Aguera, 2013). The concept of “stakeholders” gained wide acceptance with Freeman’s (1984) book “Strategic Management: A Stakeholder Approach”, a fact that is widely recognized by researchers (Donaldson and Preston, 1995; Mitchell et al., 1997; Jawahar and Mc Laughlin, 2001). Stakeholders in tourism, generally refer to those groups or individuals who are associated with tourism development initiatives and therefore can affect or are affected by the decisions and activities concerning those initiatives (Waligo et al., 2013).

Research on stakeholders in tourism covers a wide range of topics including stakeholder identification and analysis (Mereiros De Araujo and Bramwell, 1999; Hardy and Beeton, 2001; Aas et al., 2005; Vernon et al., 2005; Byrd, 2007); stakeholder types (Hall and Lew, 1998; Butler, 1999; Marwick, 2000; Mason, 2003; Getz and Timur, 2005); stakeholder involvement in sustainable development of tourism (Ryan, 2002; Getz and Timur, 2005; Hall, 2007; Dodds, 2007); stakeholder impact on tourism development initiatives (Bramwell and Sharman, 2000; Getz and Timur, 2005; Hall, 2007). However, in terms of issues involving stakeholders in tourism, empirical research lacks widespread documentation (Dodds, 2007; Hall, 2007). Thus, recognizing the role of stakeholders for the successful management of sustainable tourism and taking into account their varied perspectives on different issues is of vital importance (Bramwell et al., 1996; Hardy and Beeton, 2001; Dodds, 2007).

The issue is further complicated by the fact that effective stakeholder involvement is complex, problematic and often, underestimated (Jamal and Getz, 1995; Mowforth and Munt, 2003; Friedman and Miles, 2006) and that collaboration is often complicated by the existence of multiple and diverse stakeholders having widely differing viewpoints (Marwick, 2000; Ladkin and Bertramini, 2002). Further, while sustainable tourism embraces all three of the dimensions of tourism development; viz.; *economic*, *environmental* and *social*; attention in research has been largely focused on economic and environmental aspects neglecting, to a great extent, the social aspect and stakeholder processes (Hardy et al., 2002; Ryan, 2002).

For successful implementation of sustainable tourism, stakeholders can no longer be recipients of sustainable tourism plans but active participants in the planning process also (Southgate and Sharpley, 2002; Byrd, 2003). Very often, sustainable tourism strategies are developed for destinations

without considering stakeholder perspectives (Polonsky and Scott, 2005; Byrd et al., 2009; Currie et al., 2009) and as a result, do not necessarily favor stakeholder participation and sometimes actually hinder sustainability (Pretty, 1995). The current perspective of sustainable tourism implementation is driven by stakeholder partnerships and therefore, implies that successful sustainable tourism implementation depends greatly on effective stakeholder engagement. As a result of this, further research must necessarily explore the barriers and opportunities in stakeholder involvement as well as the factors which influence stakeholders when engaging with sustainability.

## Challenges and Issues in Implementation of Sustainable Tourism

One of the main problems in the implementation of sustainable tourism lies in the complexity of the issue and its practical applications (Sharpley, 2000; Harris et al., 2002; Hardy et al., 2002; Dewhurst and Thomas, 2003). Interpretation of sustainability from an operational perspective too presents problems as the construct or term itself is inherently ambiguous and malleable. While controversy still exists in the various terms and their alternative approaches assumed to be synonymous with sustainable tourism (Butler, 1990; Wheeler, 1991; Mowforth and Munt, 1998; Hunter and Green, 1995), the methods of delivering sustainable tourism and the routes and directions for its practical application remain vague (Robson and Robson, 1996; Wall and Mathieson, 2006). Hopwood et al. (2005) attempted to explain this diversity in sustainability through the terms “*status quo*”, “*reform*” and “*transformational*” perspectives, where each subsequent perspective advocates higher levels of human and environmental wellbeing through concomitantly higher levels of social, cultural and political change. Hunter’s (1997) paradigm of *weak* and *strong* sustainability perspectives would appear to accord with the status-quo and transformational approaches (Weaver, 2012).

Coupled with the salient issues of agreement, coordination, collaboration and responsibility, were other issues such as mistrust of government policy, poor administration, failure to involve local communities, ineffective communication (Berry and Ladkin, 1997; Ioannides, 1995) lack of government support, lack of leadership and lack of stakeholder involvement or buy in (Dodds, 2007; Timur and Getz, 2009). This has resulted in a feeling of disempowerment among stakeholders, a lack of common ground and common interests between stakeholders and bureaucracy and consequently, an unwillingness to make significant changes in behaviour among stakeholders (Weaver, 2000; Getz and Timur, 2005; Miller et al., 2010; Cooper et al., 2009; Dodds and Butler, 2009). Stakeholders, therefore, need the opportunity to discuss issues that impact



their lives and livelihoods and must be empowered to do so (Norton, 2005; Wall and Mathieson, 2006).

## Sustainable Tourism Models

Despite empirical analysis providing substantial information relevant to tourism planning and sustainability in specific case studies, tourism literature has thus far provided no generally accepted theoretical frameworks for the assessment of progress towards sustainability. Generally two schools of thought emanate - a political economy or reactive view which suggests residents have little, if any, voice in the developmental process of the destination and can at best react to consequences in their environment via plans imposed on them by planning groups or outside bodies (Keogh, 1990). The functional view considers tourism as a proactive force, which when appropriately managed seeks to maximize community returns while minimizing costs to its environment and culture via stakeholders who collectively manage the tourism system (Keogh, 1990).

Jamal and Getz (1995) define these collaborative efforts as “a process of joint decision making among autonomous, key stakeholders of an inter-organizational, community tourism domain designed to resolve planning problems of the domain and/or to manage issues related to the planning and development of the domain”. Fennel (1999) and Weaver (2001) in their research on *model relationships* between sustainable and unsustainable tourism claim that it is practically impossible to designate a clear boundary between sustainable and unsustainable tourism. Fennel (1999) explains sustainable tourism in relation to the various aspects of tourism (attraction, accommodation, accessibility and ancillary services) and the kind of degrees or stages of tourism. While Weaver (2001) claims that mass tourism (closer to *unsustainable tourism*) constitutes a kind of continuum of alternative tourism (closer to *sustainable tourism*) such that they cannot be treated as opposing categories. Two conclusions can be drawn from these disparate viewpoints; viz.; (1) principles of sustainable tourism should be introduced in all forms of tourism thus causing change in the desired direction from unsustainable to sustainable tourism and (2) if mass tourism is a continuum of alternative tourism, a less desirable direction of change from sustainable to unsustainable tourism is possible.

Hunter, 1997, conceptualized (stages) degrees of development (functioning) of sustainable tourism wherein he contrasted the position of tourism vis `a vis the position of sustainable development within diverse areas distinguishing four variants of functioning of tourism within sustainable development. Hunter’s model is criticized in that it excludes the possibility of wide scale tourism development which would take into account principles of sustainable development. In their model of Sustainable Tourism, Durydiwka et al., (2010)

contended that sustainable tourism was related to three main types of tourism; viz.; natural environment (ST natural), cultural environment (ST cultural) and requiring certain skills from tourists (ST qualifying) and that the holistic conception of sustainable tourism should be understood as a combination of various forms of tourism complemented by common objectives.

Butowski (2012) presented a versatile model of Sustainable Tourism designed as a theoretical construct which would constitute a theoretical basis for detailed application models, applicable in all conditions, on every reception area and for every type of tourism. The aim of the sustainable tourism model was to strive for a state of equilibrium in fulfilling the needs of two main stakeholder groups; viz.; tourists and community residents. It is a short term cost-benefit model which considers tourism development and its concomitant benefits to both residents and tourists versus resource degradation as the unavoidable cost to be incurred due to tourism development. It considers the minimum/maximum accepted level of benefits (*need fulfillment*) of both tourists and residents versus the minimum/maximum/unavoidable accepted level of costs (*degradation*) of the natural and anthropogenic environment where minimum accepted benefits and maximum accepted degradation are the two pairs of interrelated independent variables and unavoidable degradation and maximum benefits are the dependent variables. Sustainable tourism is the area of balance in fulfilling the needs of both stakeholder groups.

Numerous other models of Sustainable tourism have been proposed by various researchers to suit their particular types of tourism promotion through research objectives and destination requirements. The model of sustainable tourism based on systematic analysis (Camus et al., 2014) views the tourist sector as a complex social system (due to its multiple components) involved in multiple mutual interactions which successfully integrates the principles of sustainable development so as to ensure long term sustainable tourism.

Kristinic and Drpic (2013) suggest a model of sustainable tourism management for a destination based on the SWOT analysis of the tourism development of the destination. The Management Model so suggested for sustainable tourism uses an association/organization of various stakeholder groups in clusters whose activities will be designed and coordinated by a ‘Centre for Sustainable and Responsible Tourism of a Destination’. Such an interdisciplinary approach will not only provide for synergy in the effort towards sustainable tourism but will, both individually for each stakeholder and collectively for the destination, eliminate the negative phenomena of tourism development while emphasizing its advantages.

Shikida et al., 2010 proposed a simple tourism relationship model depicting the relationship between community

and extra-community stakeholders to enable the effective development of sustainable tourism. *[The successful development of sustainable tourism is brought about by the identification of two important factors namely, a “circulation mechanism” which connects community resources and extra-community stakeholders through community based intermediaries and a balancing mechanism that considers the existence value and economic value, supplemented by “community based intermediaries” function to transfer financial capital from non-tourist sources.]* The model attempts to balance two separate values- the economic value (which extra-community stakeholders focus on maximizing and which could overuse community resources) and the existence value (which communities tend to favour in terms of protecting resources). The intermediary, which is a subsystem of the model represents the value of the community and tries to balance the relationship between Community and extra community stakeholders by a ‘circular mechanism’ and a ‘control flow’ mechanism to transfer financial capital from non financial resources.

Okazaki, (2008) advocates community participation in the tourism planning process as a way of implementing sustainable tourism and reviews the major theories of community participation as the basis for defining a community based tourism (CBT) model which used to assess the current status of a community with regard to actual participation levels in a tourist destination using a two-dimensional graph. The model was empirically tested in Palawan in the Philippines and the levels of community participation, collaboration and social capital estimated as well as suggested initiatives to enhance CBT.

Johnston and Tyrrell, (2005) suggested a mathematical model based on the application of Optimal Control Theory to Fisheries put forward by Clark, (1990). It assumes two main primary interest (stakeholder) groups who are interested in the existence and outcomes of tourism- local permanent residents and tourism planners. The model stresses the impossibility of a universally sustainable environmentally optimal solution across all stakeholder groups but attempts to assist tourism planners in understanding the various choices and tradeoffs inherent in the various options for environmentally sustainable tourism and is thus, clarifying and structuralizing the concept of tourism sustainability.

Despite the diversity of sustainable tourism models in terms of the research objectives, the types of tourism or the destinations covered and the problems inherent in the study of determining a model of sustainable tourism, a common thread through these models is the need for stakeholder participation in the process of sustainable tourism. Keeping this in mind, in the present research an attempt is made to gauge the understanding of various aspects of tourism from the point of view of multi-stakeholders in the tourist destinations with a view to suggesting a model that was

developed in Cornwall for sustainable tourism but which may be applied in the State of Goa bearing in mind the similarities in the two destinations especially their small size and coastal nature.

## Sustainable Tourism and Structural Equation Modelling (SEM)

Structural Equation Modelling (SEM) is a renowned and widely used statistical technique to test theory in a number of academic disciplines (Hair et al., 1998; Schumacker and Lomax, 2004) and behavioural sciences as well. It can be viewed as a combination of multivariate statistical techniques i.e. factor analysis, discriminant analysis and regression analysis or path analysis where the relationship between the theoretical constructs (represented by latent factors) are represented by regression or path coefficients between the factors. (Klem, 2000; Hox and Bechger, 1998). The main advantages of SEM over other statistical techniques is that it allows for the estimation of a series but independent multiple regression equations simultaneously and has the ability to incorporate latent variables into the analysis accounting for measurement of errors in the estimation process (Hair et al., 1998). There are many studies carried out in the area of tourism using SEM where multiple variables are being analysed for developing models (Refer Figure 1).

While SEM is not a new statistical technique (Joreskog, 1967; 1969) its usage in tourism research is relatively recent. Yoon et al., (2001) used SEM to examine the effects of four exogenous constructs dealing with economic, social, cultural and environmental impacts of tourism on two endogenous constructs- the first being total impact and the second being the residents’ support for tourism development. Ko and Stewart (2002) used SEM to test the relationship between residents’ perceived tourism impacts and attitudes towards host community in Korea and found that community satisfaction was closely related to perceived positive and negative impacts which further caused their attitude towards additional tourism development. Dyer et al., (2007), developed a structural model to describe tourism impact perceptions of the residents in Queensland, Australia and their subsequent effect on the resident support for tourism development wherein positive economic impacts had the largest influence on support for tourism development. Gross and Brown (2008) used SEM to examine the relationship between involvement and place attachment in a tourism context. He and Song (2009) investigated the mutual relationships among tourists’ perceived service quality, value, satisfaction and intentions to repurchase package tours from travel agents using SEM.

Ballantyne et al., (2011) attempted to investigate the extent to which wildlife tourism experiences positively impact

tourists' awareness, appreciation and actions in relation to the specific wildlife encountered as well as the environment in general using SEM to identify those factors that best predict positive long term learning and environmental behavior change. Nunkoo and Ramkissoon, (2011) developed a model of community support based on social exchange theory using SEM and suggested that residents' support for tourism was influenced by perceived benefits, perceived costs and community satisfaction. Vargas - Sanchez et al., (2011) used SEM to investigate the possibility of proposing a universal model to explain residents' attitude towards tourism development given its wide popularity with tourism researchers and it supported the hypothesis that positive impacts have a favourable influence on residents' perspective. Assante et al. (2012), used SEM to construct a model to understand resident perceptions about tourism impacts in Hawaii and their consequent involvement and satisfaction with tourism so as to increase the sustainability of future tourism development. Hallak et al., (2012) attempted to examine and develop a model using SEM of how place identity, entrepreneurial self efficacy and support for community influence the entrepreneurial performance

of small and medium tourism enterprise owners (SMTE) and found that place identity (the place from where the business operates) of tourism entrepreneurs has a significant positive direct as well as indirect effect on entrepreneurial performance.

Ramkissoon et al., (2013) used SEM to examine the four dimensions of place attachment as a second order construct and studied its relationship with place satisfaction and low and high effort pro-environmental behavioural intention. Romao et al., (2014), used SEM along with other statistical techniques to depict the relationship between tourist choice of a particular trip (boat tour) and the effect of this choice on their satisfaction and loyalty of tourists as well as its implications for the marketing and management of the destination. Xu and Fox, (2014) undertook a study of visitors to the protected areas in different cultural contexts viz China and the UK, to explore whether the value a person attaches to the environment influences their attitude towards sustainable tourism development in National Parks and found that ecocentric values significantly influence people's attitude towards tourism and sustainable development.

**Figure 1: Summary of Literature Review on SEM**

Author and Year of Publication	Variables Used in the Study
Lindberg and Johnson (1997)	Demographic variables; values (net economic gain; minimal disruption of daily life; adequate recreation facilities; aesthetically pleasing environment; satisfying interaction with non residents; affirmation of community/culture; influence over community decisions); attitudes towards tourism development
Bachleitner and Zins (1999)	Tourism Impact and Attitude Scale (TIAS scale) and additional variables (tourism development; personal economic benefits; infrastructure; crowding; pollution and discriminations)
Yoon et al. (2001)	Four exogenous constructs including economic impact, social impact, cultural impact, environmental impact, two endogenous variables including total impact and support for tourism development
Gursoy et al. (2002)	Community concern; Community attachment; Ecocentric attitude; Utilization of tourism resource base by residents; The state of the local economy; Perceived benefits; Perceived costs; Support for tourism based in two typologies (cultural and historic attractions; and cultural and folks events)
Ko and Stewart, (2002)	Examined five latent constructs including Positive and negative impacts of tourism, personal benefits derived from tourism, overall community satisfaction and attitude toward additional tourism development
Jurowsky and Gursoy (2004)	Community concern; Ecocentric attitude; Utilization of the tourism resources by the residents; State of the local economy; Perceived benefits; Perceived costs; Support for two tourism development typologies (cultural or historic based attractions and cultural and folk events)
Gursoy and Rutherford (2004)	Community concern; Community attachment; Ecocentric attitude; Utilization of tourism resource base by residents; The state of the local economy; Perceived economic, social and cultural benefits; Perceived social and cultural costs; Support for tourism based in three types (nature based developments, cultural or historic based development and nature programs)
Johnston and Tyrrell (2005)	Environmental Quality, Growth of renewable resources Number of visitors per period
Gursoy and Kendall (2006)	Community concern, Community attachment, ecocentric attitude, Perceived benefits, perceived costs, Support for Mega Events
Dyer et al. (2007)	Impact of five factors- negative socio- economic impact, positive social impact, negative social impact, positive cultural impact, positive economic impact and support for further tourism development

Author and Year of Publication	Variables Used in the Study
Gross and Brown, (2008)	Examines the predictive relationship between involvement (a multidimensional construct consisting of attraction, centrality to lifestyle, self-expression, food and wine) and place attachment (conceptualised as a multidimensional construct of place dependence and place identity)
Oviedo-García, Castellano-Verdugo, and Martín-Ruiz (2008)	Positive impacts (economic, socio-cultural, and environmental), negative impacts (economic, socio-cultural, and environmental), global evaluation, tourism development, tourism planning
He and Song, (2009)	Studies the mutual relationships among tourists' perceived service quality, value, satisfaction, and intentions to repurchase packaged tour services from travel agents
Vargas-Sánchez et al. (2009)	Personal benefits from tourism development; Perceived negative impacts of tourism; Perceived positive impacts of tourism, Satisfaction with the community; Support for a major development of tourism
Nicholas et al. (2009)	Community attachment, environmental attitudes, level of involvement in Pitons Management Area (PMA), perception of the PMA, Support for sustainable tourism development in the PMA, Support for the PMA as a World Heritage Site
Gursoy et al. (2009)	Community concern; Community attachment; Ecocentric attitude; Utilization of tourism resource base by residents; The state of the local economy; Perceived economic, social and cultural benefits; Perceived social and socio-economic costs; attitudes towards two different types of tourism development: mass tourism and alternative tourism
Hsieh, Park, Huh (2010)	Residents and tourists Perceptions about Tourism's positive economic impact, positive social impact, negative social impact, positive cultural impact, negative environmental impact and support for sustainable tourism
Nusair and Hua (2010)	Influence of satisfaction, trust and investment on affective commitment towards purchase of travel products
Nunkoo and Ramkisoorn, (2011)	Residents level of trust tourism institutions, residents perceived level of power to influence development, Residents satisfaction with neighborhood conditions are antecedents of perceived costs and benefits and overall satisfaction with community which ultimately influence support for tourism development
Ballantyne, Packer and Falk, (2011)	Measured the effect of visitors' entering attributes (pre-visit environmental orientation and motivation for visit) salient aspects of experience and short and long term learning and environmental behavior change outcomes
Vargas- Sanchez, Porras-Bueno, and Plaza-Mejía, (2011)	Personal benefits from tourism development; Perceived negative impacts of tourism; Perceived positive impacts of tourism, Satisfaction with the community; Support for a major development of tourism
Nilplub and Khang, (2012)	Impact of Pull motivation, push motivation, perceived value of money and perceived service quality on satisfaction and ultimately on destination loyalty
Back, (2012)	Re-examined the links between Attitudinal brand loyalty (through the variables of cognitive brand loyalty, affective brand loyalty, conative brand loyalty) and Action brand loyalty (through the variables of repurchasing frequency and repurchasing, amount)
Hallack, Brown and Lindsay, (2012)	Examines how identity, entrepreneurial self-efficacy and support for community influence entrepreneurial performance of small and medium tourism enterprises
Assante, Wen and Lottig, (2012)	Residents perception of tourism environmental impacts and the Residents perception of Government management of tourism's impact on overall community satisfaction and attitude towards sustainable tourism
Musa and Ong, (2012)	Examines causal relationships between experience, personality and attitude on behavior of scuba divers
Lee (2013)	Assessment of residents support for sustainable tourism development using latent variables of community attachment, community involvement, perceived benefits, perceived costs
Ramkisoorn, Smith and Weiler, (2013)	Investigated place attachment as a second order construct involving (Place dependence, Place identity, Place affect, Place social bonding and its relationship with Place satisfaction and visitors high and low pro-environmental behavioural intentions)
Kim, Uysal and Sirgy, (2013)	Residents perceptions of tourism's economic, social environmental and cultural impacts, sense of material well-being, sense of community, well-being, sense of emotional well-being, sense of health and safety on Overall Life satisfaction mediated by stage of tourism development in the community



Author and Year of Publication	Variables Used in the Study
Deng and Li, (2013)	Examines the relationship between event image, destination image, overall attitude towards destination and behavioural intentions towards the destination
Arsezen-Otamis and Yusbasioğlu, (2013)	Studied impact of Diamond Model( factor conditions, demand conditions, work and competition structures, related and supporting structures and State)on perceived performance of Antalya tourism clusters
Untong and Kaosa-ard, 2014	3 Latent variables – Structure(exogenous), Private investment, Conduct of local government(endogenous) influencing the success of sustainable tourism development
Xu and Fox, (2014)	Examines whether Anthropocentric and ecocentric attitudes(value) attached to tourism and the environment, conservation and sustainable tourism development
Romao, Neuts, Nijkamp and Shikida, (2014)	Examined the effect of tourist and trip characteristics on tour choice and the effect of this choice on tourists' satisfaction and loyalty
Al-Refaie, (2015)	Impact of HRM practices, service quality, employee satisfaction, employee loyalty, customer satisfaction, customer loyalty on hotel performance

## RESEARCH METHODOLOGY

### Research Background and Location

The study examined stakeholder attitudes and perceptions towards sustainable tourism in the state of Goa. A sample of multiple-stakeholders who were above the age of 18 years, which included 1000 domestic and international tourists who visited the state of Goa as well as 1000 local residents comprising residents engaged in tourism businesses, not engaged in tourism businesses, entrepreneurs engaged in the tourism sector as well as government officials employed in the tourism sector. In total, four types of stakeholders are surveyed, viz., tourists, residents, entrepreneurs, and government officials.

### Questionnaire Development

A modified structured questionnaire appropriate for the state of Goa was developed based on previous similar research studies carried out by Byrd et al., 2008; Kruja and Hasaj, 2010; Quintano et al., 2011; Ong Smith, 2013. The questionnaire had four parts, Part I with biographical details and Part IV with tourism sustainability issues was used for this research paper. Part IV included 44 items or statements covering aspects of sustainable tourism such as the (a) understanding of sustainability, (b) focus of sustainable tourism, (c) sustainable tourism management, (d) participation in sustainable tourism development, (e) support for sustainable tourism development, (f) economic focus of sustainable tourism, and (g) tourism industry and sustainability. Each statement was represented on a five point Likert scale as recommended by Maddox (1985), where 1 represented a response of “strongly disagree”, 5

represented a response of “strongly agree” and 3 represented the “neutral” point.

### Data Collection and Analysis Techniques

Primary and secondary data was collected for the study. The sample size for the collection of primary data was determined using judgment/convenience sampling method. Of the 2000 questionnaires given out (1000 residents & 1000 tourists), 1657 questionnaires were returned (805 tourists and 852 residents), giving a response rate of 82.8%. However, the total number of usable questionnaires was only 1570 giving a final response rate of 78.5%. Secondary data was collected from relevant research journals; data procured from Department of Tourism (Government of Goa), Goa Tourism Development Corporation (GTDC), other relevant government departments, information was also collected from booklets and other relevant government publications like the Economic Survey etc.

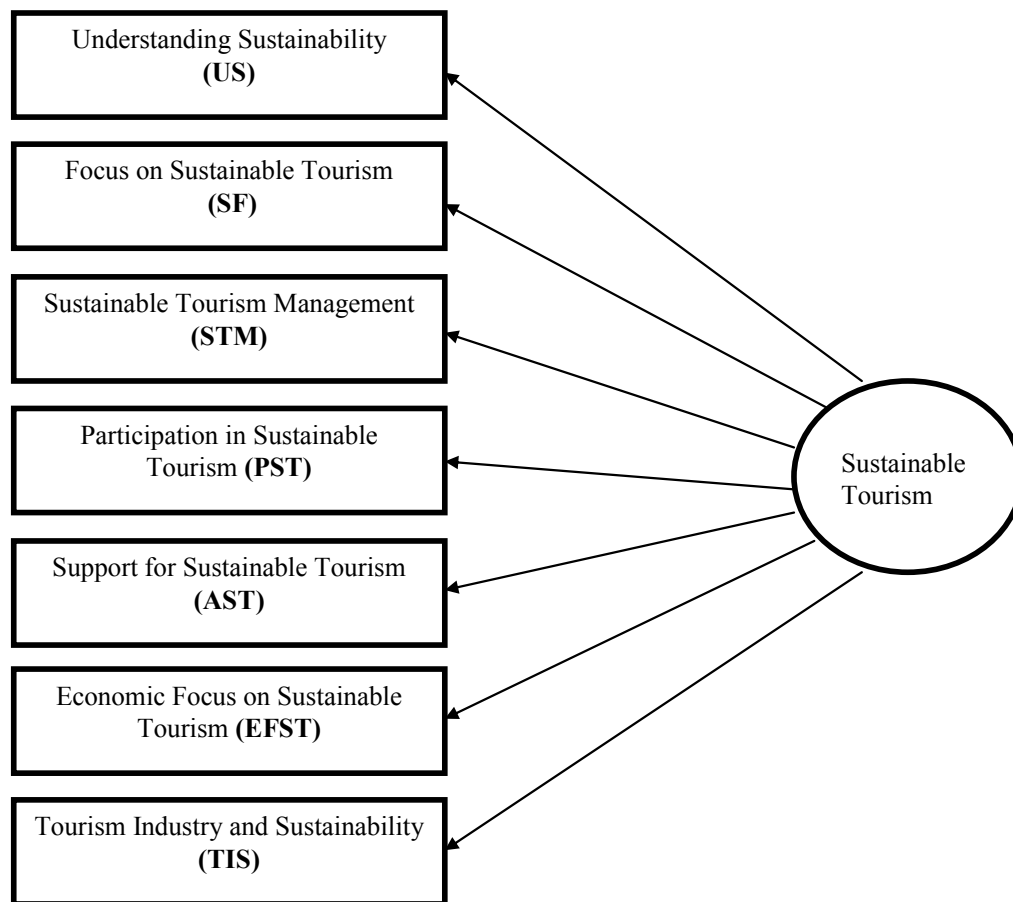
Data collected was analyzed using SPSS 20. Descriptive statistics, mean analysis, factor analysis and structural equation modeling (SEM) were used. Mean analysis was used to find out the mean of stakeholders perceptions about the sustainability of tourism in the state and was obtained from their responses to the tourism sustainability issues statements. An exploratory factor analysis (EFA) using principal component method with varimax rotation was conducted to gauge stakeholder perceptions and understanding of sustainable tourism. The appropriateness of factor analysis was determined by examining the Kaiser-Meyer-Olkin measure of sampling adequacy and Bartlett's test of sphericity. A value of 0.60 or above from the Kaiser-Meyer-Olkin measure of sampling adequacy test indicates that the data were adequate for EFA (Tabachnick and Fidel, 1989). In order to ensure that each factor identified by EFA had only one dimension and each attribute loaded only on



one factor, attributes that had factor loadings of lower than 0.40 and attributes loading on more than one factor with a loading score of equal to or greater than 0.40 on each factor were eliminated from the analysis (Hattie, 1985). After identifying the dimensions, a Cronbach's Alpha reliability test was conducted to evaluate the reliability of each measurement scale. Structural equation modeling using AMOS 22 was used on the proposed model and a path diagram resulted.

### Structural Model: Stakeholder Perception of Sustainable Tourism and their Willingness to Support Sustainable Tourism

After identifying the stakeholders perception of sustainable tourism, the influence of these perceptions on their willingness to support sustainable tourism was assessed. The relationship between stakeholder perception and attitude towards sustainable tourism and their consequent support/opposition towards it, is supported by the Theory of Reasoned Action [TRA] (Fishbein and Ajzen, 1975; Ajzen and Fishbein, 1980). The theory postulates that individuals are all rational beings who ensure possession of all pertinent information and who evaluate all possible repercussions and implications of their actions before deciding to engage in them (Ajzen, 1985).



**Figure 2: Hypothesized Model of Multi-stakeholder Perception and Support for Sustainable Tourism**

According to TRA, the factor most pertinent to the prediction of behaviour is the intention of the individual which in turn is the antecedent of actual behaviour. The term 'intention' includes all the motivational factors that affect behaviour and indicate how much effort an individual will be willing to put in in order to engage in that behaviour. Ultimately the

theory states that the more favorable an individual's attitude or perception is towards a behaviour, the more (s) he intends to perform it.

Based on this theoretical concept, an exploratory structural model was constructed to test the validity of the seven factor measurement scale representing stakeholder perception

of tourism sustainability in the state of Goa, wherein the seven factors were examined as exogenous variables and sustainable tourism was examined as an endogenous variable. The model was used to test the following hypothesis:

*H1: There is no significant relationship between*

- a) *Understanding of Sustainability (US)*
  - b) *Focus on Sustainable Tourism (SF)*
  - c) *Sustainable Tourism Management (STM)*
  - d) *Participation in Sustainable Tourism (PST)*
  - e) *Support for Sustainable Tourism Development (AST)*
  - f) *Economic Focus on Sustainable Tourism (EFST)*
  - g) *Tourism Industry and Sustainability (TIS)*
- and

*Sustainable Tourism (ST) with respect to Stakeholder perception*

### RESEARCH RESULTS AND DISCUSSION

The aim of this study was to investigate the relationship between stakeholder perception of sustainability and

sustainable tourism. To this end data was collected from stakeholders in the state of Goa and was analyzed using a range of techniques including Structural Equation Modeling (SEM).

### Demographic profile of Respondents

Of the 1570 stakeholders (respondents) who completed the survey (Refer Figure 2), the largest percentage of stakeholders were youngsters in the age group 18-27 years (28.5%), followed by those in the age group 28-37 (24.7%) and 38-47 (20.8%). The percentage of males and females surveyed were approximately equal with males accounting for 49.6% and females 50.4%. In terms of education, the largest number of respondents 47.6% reported graduation as their level of education, followed by post graduation at 21.1% and HSSC/Pre-University at 15.5%. Age and education level indicating that youngsters having high level of education are able to understand the concept of sustainability in a better way. With respect to marital status, 53.9% of respondents were married and 46% were single.

Demography	#	%	Demography	#	%
<b>Age</b>			<b>Education</b>		
18-27	447	28.5	SSC & below	104	6.6
28-37	388	24.7	HSSC/Pre University	244	15.5
38-47	326	20.8	Graduate / Bachelors	748	47.6
48-57	263	16.8	Post Graduate / Masters	332	21.1
58 & Above	146	9.3	Professional	142	9.0
<b>Gender</b>			<b>Marital Status</b>		
Male	778	49.6	Married	846	53.9
Female	792	50.4	Single	724	46.1
<b>Stakeholder Category</b>			<b>Location</b>		
Tourist	761	48.5	North Goa	822	52.4
Resident	589	37.5	South Goa	748	47.6
Entrepreneur (Tourism)	118	7.5			
Government (Tourism)	102	6.5			

**Figure 3: Demographic Characteristics of Respondents (N=1570)**

Source: Compiled from Primary data

Further, in terms of stakeholder category, tourists constituted 48.5%, residents were 37.5%, entrepreneurs involved in tourism businesses were 7.5% and government employees involved in tourism were 6.5%. The lowest response rate from entrepreneurs and Government officials indicates the lethargic attitude towards providing their opinion about

sustainability status of tourism in Goa. Though these two stakeholders are directly getting the benefits from tourism, they are not bothered about providing their opinion about sustainability. In terms of location, 52.4% were from North Goa while 47.6% were from South Goa.

## Exploratory Factor Analysis (EFA) & Mean Analysis

EFA of the original 52 items on the *sustainability issues scale* using Principal Component Analysis (PCA) with Varimax Rotation generated 7 factors with 44 variables in total, after items cross loading on two or more factors and those which loaded less than 0.40, were removed. The overall scale reliability of the sustainability issues scale (44 items) with N= 1570, (Refer Figure 4) had a very high overall alpha coefficient of 0.924, with subscales:

- a) Understanding of Sustainability
  - US (8 items;  $\alpha = 0.884$ )
- b) Focus of Sustainable Tourism
  - FST (9 items;  $\alpha = 0.848$ )
- c) Sustainable Tourism Management
  - STM (7 items;  $\alpha = 0.761$ )
- d) Attitude Towards Sustainable Tourism
  - AST (5 items;  $\alpha = 0.802$ )
- e) Participation in Sustainable Tourism Development
  - PSTD (5 items;  $\alpha = 0.752$ )
- f) Economic Focus of Sustainable Tourism
  - EFST (4 items;  $\alpha = 0.726$ )
- g) Tourism Industry and Sustainability
  - TIS (6 items;  $\alpha = 0.639$ )

Mean analysis (Refer Figure 4, last column) indicated a scale mean value of 4.05 for Factor 1 - Understanding of Sustainability (US). However, 3 statements, viz., Economic growth and viability involving long term view (3.97), Environmental care along with consideration for visitors

(3.93), Carrying capacity considerations and using codes of practice (3.88) are slightly below average. The first two could be indicative of a shift in perception of sustainability from the commonly considered economic and environmental perspective while the third may be as a result of lack of clarity about the concept of carrying capacity. With respect to Factor 2 - *Focus on Sustainable Tourism (SF)* with a scale mean value 4.18 showed 5 statements out of 9 showing slightly below average, viz., *The protection of wildlife breeding colonies* (4.14), *The quality of visitor experience* (4.10), *The reduction of disturbance of the attractions* (4.05), *Organized regional plans for tourism* (4.00), and *Consultation between government, industry, and local residents* (4.17).

In terms of **Factor 3- Sustainable Tourism Management (STM)** with scale mean of 4.04, showed 3 items out of 7 are having slightly below average values. *Administration of Sustainability legislation should be the responsibility of Local and Regional Government* (3.92), *Tourism Industry has the greatest role to play in implementing Sustainable Tourism development policy* (3.93) and *Marketing is a useful tool for Sustainable Tourism development* (3.93) are indicative of the need for combined action from stakeholders to bring about Sustainable Tourism Management. With respect to **Factor 4 – Participation in Sustainable Tourism (PST)** with scale mean 4.16 showed 3 out of 5 factors having above average perceptions. *Help ensure implementation of Code of Conduct to guarantee Sustainable Tourism* (3.98) though below average, is tending towards the highest end of the scale and could possibly be because of lack of clarity of the concept ‘Code of Conduct’. The one which is almost closer to the average is, *Help promote cultural appreciation and understanding* (4.14).

Tourism Sustainability Issues (44 items, N = 1570, Scale alpha= 0.924)	Factor Label	Factor Loading	SD 1	D 2	N 3	A 4	SA 5	
<b>[F1]</b> Understanding of Sustainability Scale Mean = 4.05, alpha = 0.884, 8 items, Eigen value = 9.973 % of Variance explained = 22.66								
Environmental care involving a need for economic growth & viability	S1	.770	0.5	2.0	16.8	53.1	27.7	4.05
Environmental care involving a long-term view	S2	.769	0.8	2.8	17.3	42.6	36.5	4.11
Economic growth and viability involving a long-term view	S4	.768	0.7	3.7	21.8	45.7	28.2	<b>3.97</b>
Resource and environmental management	S5	.751	1.1	2.7	13.5	45.2	37.5	4.15
Environmental care with consideration for social factors.	S0	.738	1.5	3.1	17.8	48.4	29.3	4.01
Maintaining and preserving resources for future generations	S7	.728	2.1	2.6	12.4	30.5	52.4	4.28
Carrying capacity considerations & using codes of practice	S6	.711	0.7	4.0	26.7	43.6	25.0	<b>3.88</b>
Environmental care along with consideration for visitors	S3	.702	0.6	4.1	20.6	51.3	23.4	<b>3.93</b>
<b>[F2]</b> Focus of Sustainable Tourism Scale Mean = 4.18, alpha = 0.848, 9 items Eigen value = 2.697 % of Variance explained = 6.130								
The protection of high scenic value	SF2	.780	0.2	2.3	10.2	46.8	40.6	4.25
The reduction of damage to the physical environment	SF3	.771	0.1	1.8	10.4	41.1	46.5	4.32
The protection of wildlife breeding colonies	SF0.	.742	0.8	2.0	17.1	42.6	37.5	<b>4.14</b>
The protection of areas of high habitat value	SF4	.675	0.5	2.0	12.6	47.5	37.3	4.19
The quality of the visitor experience	SF1	.610	0.5	1.3	15.0	53.9	29.2	<b>4.10</b>
The reduction of disturbance of the attraction	SF5	.576	0.2	3.3	20.3	46.1	30.1	<b>4.05</b>
Preservation and conservation of all resources	SF11	.537	0.1	1.9	10.4	36.1	51.7	4.37

<b>Tourism Sustainability Issues (44 items, N = 1570, Scale alpha= 0.924)</b>	<b>Factor Label</b>	<b>Factor Loading</b>	<b>SD 1</b>	<b>D 2</b>	<b>N 3</b>	<b>A 4</b>	<b>SA 5</b>	
Organized regional plans for tourism.	SF9	.513	0.2	3.4	19.3	50.6	26.5	<b>4.00</b>
Consultation between Government, Industry and Local Residents	SF10	.420	0.7	2.0	15.8	42.4	39.2	<b>4.17</b>
[F3] Sustainable Tourism Management Scale Mean = 4.04, alpha = 0.761, 7 items, Eigen value = 2.520 % of Variance explained = 5.726								
Long term sustainability of tourism is the priority	GAT3	.711	0.9	3.5	18.3	42.5	34.8	4.07
Education of tourism staff is important in the implementation of sustainable tourism practices	GAT10	.705	0.6	1.3	11.6	45.2	41.3	4.25
Administration of sustainability legislation should be the responsibility of local and Regional Government	GAT8	.663	0.2	3.6	27.1	50.3	22.7	<b>3.92</b>
Sustainable tourism development should encourage the spread of tourists throughout the country.	GAT4	.652	0.2	3.9	18.6	49.4	28.0	4.01
The tourism industry has the greatest role to play in implementing sustainable tourism development policy	GAT13	.562	0.5	3.0	22.5	41.1	22.8	<b>3.93</b>
Marketing is a useful tool for sustainable tourism development	GAT14	.526	1.0	4.6	21.5	46.1	26.9	<b>3.93</b>
Tourism must be carefully managed in order for it to be sustainable	GAT1	.497	0.5	1.2	10.9	52.5	34.9	4.20
[F4] Participation in Sustainable Tourism Scale Mean = 4.16, alpha = 0.802, 5 items, Eigen value = 2.304 % of Variance explained = 5.237								
Help improve the quality of community life	PT5	.823	0.3	2.4	12.4	50.4	34.5	4.16
Help support the maintenance & improvement of Goa's environment & heritage	PT2	.749	0.4	2.2	10.7	46.1	40.6	4.24
Help strengthen respect for Goa's natural areas and historic places	PT1	.733	0.1	1.7	8.8	47.8	41.6	4.29
Help promote cultural appreciation and understanding	PT4	.694	0.2	1.8	13.7	52.2	32.2	<b>4.14</b>
Help ensure implementation of code of conduct to guarantee sustainable tourism	PT7	.589	0.8	3.8	20.3	47.1	28.2	<b>3.98</b>
[F5] Support for Sustainable Tourism Development Scale Mean = 4.02, alpha = 0.752, 5 items, Eigen value = 1.531 % of Variance explained = 3.479								
Willing to participate in management of local resources	SSTD2	.810	1.2	3.9	21.1	49.6	24.1	<b>3.92</b>
Willing to contribute to ensure greater benefits to community	SSTD3	.741	0.5	2.7	19.2	44.8	32.8	4.07
Willing to participate in sustainable tourism decision making	SSTD4	.730	0.4	3.1	15.8	46.4	34.3	4.11
Willing to contribute to protection & conservation of resources	SSTD1	.723	0.3	3.2	17.3	50.6	28.6	4.04
Willing to contribute to funding and management of solutions for tourism related problems	SSTD5	.515	0.6	3.3	20.1	49.0	27.0	<b>3.99</b>
[F6] Economic Focus Of Sustainable Tourism Scale Mean = 3.78, alpha = 0.726, 4 items, Eigen value = 1.474 % of Variance explained = 3.351								
Attracting more high spending domestic tourists	SF13	.776	2.5	8.0	31.1	32.1	26.3	<b>3.72</b>
Attracting more high spending foreign tourists	SF1	.763	1.1	5.2	24.5	36.9	32.2	3.94
Tourism Industry should focus on attracting more Foreign Tourists.	TI 3	.652	1.7	10.1	22.0	39.6	26.7	3.80
The number of tourists visiting Goa should be increased.	TI 9	.612	2.6	11.3	25.0	38.7	22.3	<b>3.67</b>
[F7] Tourism Industry and Sustainability Scale Mean = 3.65, alpha = 0.639, 6 items, Eigen value = 1.335 % of Variance explained = 3.304								
Tourism needs greater industry control.	TI 5	.607	1.5	6.5	24.5	46.2	21.3	3.79
Tourism is inherently sustainable	GAT 0	.604	2.7	11.0	33.8	41.9	10.6	<b>3.47</b>
Tourism in the most developed locations is unsustainable.	TI 7	.590	2.0	14.3	39.6	34.7	9.5	<b>3.35</b>
Tourism needs greater Government control	TI 1	.587	2.9	6.1	17.0	42.8	31.1	3.93
Tourism is more sustainable than other industries.	TI 6	.572	1.5	6.5	24.5	46.2	21.3	<b>3.57</b>
Tourism needs greater local resident control.	TI 8	.464	1.2	5.8	23.7	49.4	19.9	3.81
KMO = 0.910; Bartlett's Test of Sphericity = 23874.558; df = 948; p = 0.000**								

**Figure 4: Tourism Sustainability Issues Scale (44 items, N= 1570) Rotated Factor Matrix (Loadings<.40 suppressed)**

Source: Compiled from Primary data

In terms of **Factor 5 – Support for Sustainable Tourism Development (AST)** with scale mean 4.02; have 3 of the 5 items having above average values. *Willingness to participate in management of local resources* (3.92) and *Willingness to contribute*



to funding and management of solutions for tourism related problems (3.99), though slightly below average, is tending towards the highest end indicating a slightly lower support for Sustainable Tourism initiatives. This could perhaps be attributed to the large number of tourists surveyed as stakeholders, which, given the fact that tourists do not have as great an attachment to the destination as residents, entrepreneurs and government officials is understandable and explainable.

**Factor 6 - Economic focus on Sustainable Tourism (EFST)** with a scale mean of 3.78 indicates an average perception of where the economic focus of sustainable tourism should lie. However, given that 2 of the 4 statements, viz., *Attracting more high spending foreign tourists* (3.94) and *Attracting more foreign tourists* (3.80) have the highest values in this scale or factor, perhaps a shift in focus to attracting foreign tourists to the destination is seen as an economic path to sustainability. Finally with respect to **Factor 7 - Tourism industry and Sustainability (TIS)**, the scale mean is 3.65 (the lowest among all other factors). However, 3 of the 6 statements which have the highest means refer to the aspect of control for sustainability. *Tourism needs greater industry control* (3.79); *Tourism needs greater Government control* (3.93); *Tourism needs greater local resident control* (3.81) seem to indicate that the tourism industry needs the concerted control of all 3 major players- government, industry and local residents for sustainability.

### Structural Model / Path Design

In SEM, the development of the hypothetical model depicting the linkages between the latent constructs and their empirically observed indicators is considered as a *Measurement Model*, while the theoretical relationship between constructs is referred to as a *Structural Model* (Bollen, 1989a; Bollen, 1989b; Joreskog, 1993; Byrne 1998). An analysis of the estimated standard path coefficients in the *Measurement Model*, carried out using Maximum Likelihood Method of Estimation, revealed the strength, significance and direction of each hypothesized relationship.

A SEM Model was used to examine the hypothesized relationships between the constructs (factors) in the model using Maximum Likelihood Estimates. Model fit was initially tested using the Overall Fit and Regression Paths to determine whether observed variables were generated by corresponding latent factors. The hypothesized model was then analysed. **Figure 5** shows the standardized path diagram as estimated by AMOS 22. Each of the observed variables is displayed as a rectangle while each of the latent constructs is shown as an oval. The evaluation of Goodness of Fit indices indicate mediocre to acceptable levels of fit; viz.;

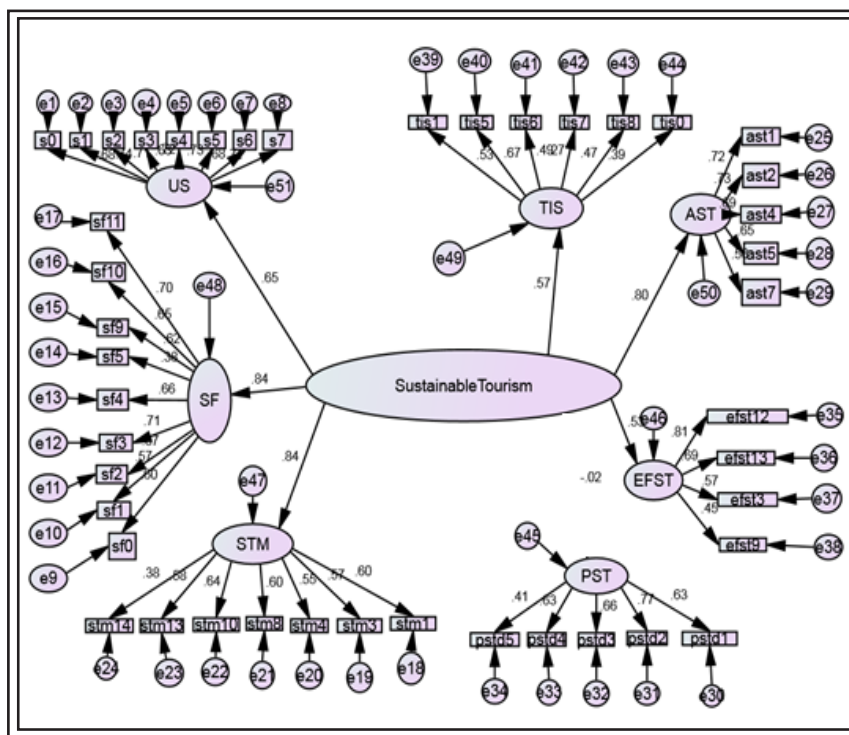


Figure 5: Standardized Estimated Path Diagram Indicating Significance at p<0.05 Level (Dashed Lines Indicate Paths Not Significant at p<0.05 Level)

Chi square/df (**CMIN**) = 4.801 which is acceptable. The acceptable ratio ranges from as high a 5.0 (Wheaton et al., 1977) to as low as 2.0 (Tabachnick and Fidell, 2007);

Goodness of Fit Index (**GFI**) = 0.883; and Adjusted Goodness of Fit Index (**AGFI**) = 0.871; both of which are in the acceptable range as values of 0.90 or greater indicate well fitting models. (Tabachnick and Fidell, 2007);

Root Mean Square Error of Approximation (**RMSEA**) = 0.049; Values below 0.8 show good fit (MacCallum et al., 1996). Recently values closer to 0.6 (Hu and Bentler, 1999) or stringent upper limit of 0.7 (Steiger, 2007) seem to be the general consensus.

Root Mean Square residual (**RMR**) = 0.035 is a good fit where values < 0.05 are indicative of a good fit (Byrne, 1998; Diamantopolous and Sigaw, 2000)

Normed- Fit Index (**NFI**) = 0.822; mediocre to acceptable; while cutoffs as low as 0.80 have been proffered as acceptable, Hu and Bentler, 1999, suggest  $\geq 0.90$  as acceptable and  $\geq 0.95$  as a good fit.

Comparative Fit Index (**CFI**) = 0.853, mediocre; while values  $\geq 0.90$  were initially advanced as acceptable, Hu and Bentler, 1999, suggest that values  $\geq 0.90$  are necessary in order to ensure that misspecified models are not accepted and values  $\geq 0.95$  as considered a good fit.

As the Goodness of Fit Indices do not support the proposed model completely, the measurement model is retained as a path diagram indicating relationships between Sustainability Issue factors and Sustainable Tourism (Refer Figure 6).

Hypothesis	Hypothesis Path	Path Coefficient	P value	Accept / Reject
H <sub>1</sub> a	US $\longrightarrow$ ST	0.65	0.00**	Accept
H <sub>1</sub> b	SF $\longrightarrow$ ST	0.84	0.00**	Accept
H <sub>1</sub> c	STM $\longrightarrow$ ST	0.84	0.00**	Accept
H <sub>1</sub> d	AST $\longrightarrow$ ST	0.80	0.00**	Accept
<b>H<sub>1</sub> e</b>	<b>PST <math>\longrightarrow</math> ST</b>	<b>-0.02</b>	<b>0.571</b>	<b>Reject</b>
H <sub>1</sub> f	EFST $\longrightarrow$ ST	0.53	0.00**	Accept
H <sub>1</sub> g	TIS $\longrightarrow$ ST	0.57	0.00**	Accept

**Figure 6: Summary of Hypotheses Test Results**

## CONCLUSIONS

The purpose of this research was to test the model of stakeholder perceptions about sustainable tourism and their consequent support for sustainable tourism by examining the path relationship between factors related to sustainability and sustainable tourism. Six of the seven factors included in the hypothesis are accepted at the  $p < 0.05$  level of significance. *Focus of Sustainable Tourism & Sustainable Tourism Management* (0.84 each), along with *Attitude towards Sustainable Tourism* (0.80) indicate a high positive association with *Sustainable Tourism*. *Understanding of Sustainability* (0.65) shows an above average positive association with *Sustainable Tourism*. *Tourism Industry & Sustainability* (0.57) and *Economic Focus of Sustainable Tourism* (0.53) show a positive, moderate association with *Sustainable Tourism*.

Finally, only with respect to *Participation in Sustainable Tourism* (-0.02) shows a low, negative relation to *Sustainable Tourism*. The null hypothesis stating that there is no significant relationship between *Participation in Sustainable tourism Development* and *Sustainable Tourism*

is rejected. A possible explanation for this could be that even when stakeholders in a destination have an awareness, understanding and positive attitude toward sustainable tourism, when it comes to actual involvement of their time, efforts and resources, commitments are lacking.

## Limitations of the Research

Several limitations were observed in this study including the questions asked in the survey, the nature of the sample, the procedures for data collection, the ability of the proposed model to explain stakeholder attitudes to sustainable tourism, to name but a few. The survey was designed to explore stakeholder perceptions in terms of different factors relating to sustainable tourism in the state of Goa. The stakeholders' ability to convey their attitudes and perceptions was related to their understanding of the survey statements which included technical terms and which could affect their responses. Further, stakeholders seemed fairly comfortable with the existing model of Mass tourism in the state which has existed for over thirty odd years and are less familiar with the relatively newer concept and characteristics of sustainable tourism.

## Recommendations for Future Research

Despite the limitations, this study proves useful in understanding the attitudes of stakeholders towards sustainable tourism. While the Path Diagram which resulted provides a valid basis for the implementation of the **Multi-Stakeholder Involvement Model (MSIM) Framework** for sustainable tourism in the state, further research need to be carried out in this context to transform it into an acceptable model and to provide inputs for the understanding of the non-significant relationship between Participation in Sustainable Tourism Development and Sustainable Tourism. Further analysis between the demographic variables and stakeholder attitude toward sustainable tourism could do much to align the goals the Industry, Government, Entrepreneurs and Residents in this regard.

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