Road Infrastructure as a Guarantee of Social Inclusion: The Case of Tourists' satisfaction in the South of Italy

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Abstract. This paper discusses the concept of social inclusion as it relates to transport, and how it is currently embedded within the Italian roads transport planning.

Transportation systems may not always be inclusive both from a geographical point of view as well as from an economic point of view. However roads bypass this issue since they are always accessible in time and space.

Through the support of a questionnaire submitted to tourists visiting the most popular tourist destinations in Campania region, in the south of Italy, it was possible to analyze their satisfaction with respect to the roads travelled during their journeys. Tourists were interviewed along some of the main roads managed by ANAS S.p.A. (Azienda Nazionale Autonoma delle Strade, National Autonomous Company of Roads), i.e. the Italian company managing road infrastructures.

The analysis revealed a difference between tourists with a low and those with a medium–high income. They perceived a different level of satisfaction with respect to road management and traffic management.

Keywords: Social inclusion · Transportation systems · Roads · South of Italy

1 Introduction

The origin of the concept of social exclusion can be traced back to France, where the term was used to define the rupture of the relationship between the individual and the society due to the failure of societal institutions to integrate individuals [1].

Today the question of inequality related to transport systems is becoming an issue that governments, at the different territorial scales, should face to find solutions to restrict the consequences. In 2015 the OECD (Centre for Opportunity and Equality) platform was developed with the aim of fostering policies on trends, causes and consequences of inequalities [2].

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According to Keynon et al. (2003) [3] by social exclusion it is meant "the unique interplay of a number of factors, whose consequences is the denial of access to the opportunity to participate in the social, and political life of the community, resulting not only in diminished material and non-material quality of life, but also in tempered life chances, choices and reduced citizenship".

Church et al. (2000) [4] introduced seven factors limiting the mobility of socially excluded users and they are physical exclusion, i.e. physical barriers, such as lack of disabled facilities or timetable information, limiting accessibility to transport services; geographical exclusion which prevents people from accessing transport services, especially those living in rural or peripheral urban areas; exclusion from facilities, which concerns the low accessibility connected with facilities, like shops, schools, health care or leisure services; economic exclusion which represents the high monetary costs of travel inhibiting access to facilities or employment and thus having an impact on incomes; time-based exclusion which refers to other demands on time, like combined work, household and child-care duties, reducing the time available for travel; fear-based exclusion which deals with the fears for personal safety precluding the use of public spaces and/or transport services and space exclusion which is the security or space management preventing given groups having access to public spaces, like first class waiting rooms at stations.

Lucas [5] proposed the definition of a "transport poor user", as the one whom some condition may happen such as when he/she has no transport alternative, which suits his/her physical conditions and capabilities; when the actual transport alternatives do not serve destinations where the user can fulfill his/her daily activity needs; when the weekly amount of money, which is spent on transport, brings the family with an income, which is below the poverty threshold. Moreover, when the user is pushed to spend long travel time, causing time poverty and/or social isolation and when factors like danger and safety characterize the travel conditions of the user.

It is important to clarify that not all socially excluded people are poor and that not all social exclusions concern the poor accessibility to transport facilities and services. However, in all countries, low-income people have fewer transport alternatives in addition to having low-quality transport services that offer travel with little comfort and low security [6]. There is an extensive literature on the wider socioeconomic inequality aspects of transport. In the book of Vasconcellos [7] the idea that the traditional transport planning has generated an unfair distribution of accessibility is supported and suggestions for new measures towards an equitable and sustainable urban environment are proposed. This idea is also supported by Martens [8] who sustains that governments have the duty of providing users with adequate transportation alternatives managing the mitigation of social disparities.

Banister's research shows [9] that "today's transport policy benefits the rich more than the poor. But it is the better-off who are travelling faster and further, leaving the poor in the slow lane and closer to home". The poor choose more the bus and they walk more, while the rich choose more the car and go by train. Investments in transportation systems should be more oriented to the limitation of this disparity, while, instead they "exacerbate it!".

This paper discusses the concept of social inclusion as it relates to transport, and how it is currently embedded within the Italian roads transport planning.

Through the support of a questionnaire submitted to tourists visiting the most popular tourist destinations in Campania region, in the south of Italy, it was possible to analyze their satisfaction with respect to the roads travelled during their journeys. Tourists were interviewed along some of the main roads managed by ANAS S.p.A. (Azienda Nazionale Autonoma delle Strade, National Autonomous Company of Roads), i.e. the Italian company managing road infrastructures.

The analysis revealed a difference between tourists with a low and those with a medium–high income. They perceived a different level of satisfaction with respect to road management and traffic management. This paper is organized as follows. In Sect. 2 a review of the contributions present in the literature on the relationship between social inclusion and transport is reported. Section 3 reports the case study; in Sect. 4 conclusions are described.

2 The Concept of Social Inclusion/Equity in Relation to Transportation Systems

Several special issues in transport related journals have been published on this topic. Hine [10] argues that the introduction of new information technologies, allowing the development of demand responsive transport, can make the system more inclusive since journeys will be matched to the users' needs.

The paper by Nash [11] deals with the issue of the Green Paper on Fair and Efficient Pricing in Transport. This document argues that tariffs should support transport costs. There are some costs that are not fully repaid such as environmental impacts, congestion, accidents, infrastructure, provision and maintenance. These excluded costs could be very high. The increase of these costs, however, could lead to social exclusion, especially for low-income people.

Lyons [12] highlights the role of accessibility in having an impact on exclusion. For example low access to places make them unsafe and intimidating, increasing the geographical exclusion of them.

Hine and Grieco [13] explain the importance of scatter or cluster identification in transport planning and a demand-sensitive transport system to meet the needs of socially excluded people. The most disadvantaged groups in transport are the older people, children, women, the disabled and low-income people. When the socially excluded are cluster it is possible to improve the bus lines and the bus times, when the excluded are scatter, transport on demand could improve their mobility. New information technologies foster the creation of a booking system that allows the pickup and drop off at home for people with low mobility in a cheap way thus reducing social exclusion.

Olvera et al. [14] analyze the case study of Dar es Salaam, the largest city in Tanzania. In that city there are numerous obstacles to the daily travel of the city's inhabitants, notably the poor. These barriers weight heavily on schedules, complicate access to services ever further, limit the use of urban space, and place considerable pressure on household budgets. Consequently, the poorest individuals tend to retreat into their neighborhood where the low-quality urban facilities are unable to assist in the development of human and social capital and economic opportunities, the alleviation of poverty or the prevention of social exclusion. Wu and Hine [15] analyze the Northern Ireland Citybus

network and assess the spatial impact on population living in the area of interest due to a hypothetical network modification. The presence in the city of Belfast of the Protestant community and the Catholic community involves the use by the population of services that cross only the areas of the community they belong to for reasons of security and fear. Four scenarios have been proposed (including the current scenario) the outcome of this analysis is that the area served by Citybus is reduced in all options different from the current situation and in particular the areas excluded from the service are the poorest ones, thus increasing the social exclusion of low-income users, who cannot afford the private car.

Hodgson and Turner [16] propose the case study of Stockport in Greater Manchester, where the question of social exclusion has been managed by promoting citizens greater participation in the planning of local transport systems. The cities of Adswood and Bridgehall have obtained funding for regeneration, which is the reason why a planning process is started, in which the residents actively participate. The key points, identified by the citizens, are road safety and the physical environment of the roads (a green area is created in the cities). A minibus service is also implemented allowing not only to reach the local supermarket but also organizing trips for young people and children. Raje [17] analyzes the social exclusion question in the city of Bristol as a result of road pricing. The area subject to this measure deals with the city center and the main commercial area and excludes residential areas. Through focus groups and direct interviews, people interviewed believe that road pricing can be beneficial if revenues are spent to improve accessibility through more flexible and responsive public demand; discounts for taxi for people who need individual transport; discounts for particular categories of users; investments in planning software and online booking of minibuses.

Stanley and Brodrick [18] assume that the concept of social exclusion is not sufficient to encompass all social policy requirements in relation to transport, there being the need to use other theoretical concepts, especially in relation to well-being and community connectiveness. To build an efficient and effective transport system it is necessary to understand these relationships and realize how psychological factors can influence them. The document contains various definitions and measures of social exclusion, the most widely used is the Social Exclusion Unit (SEU). The SEU asserts that to reduce social exclusion, it is necessary to understand how people access to the different activities and improve the transport system according to the needs of the community.

Lucas et al. [19] contribute to the issue of social exclusion through the analysis of four case studies, ie a new service linking the suburbs and the city center in Leicester, in Cornwall, and in Manchester and a project to help people to bear the travel costs in the first weeks of work in West Midland. Through on board, postal or telephone surveys, users' opinions are collected, regarding these improvements, and through a Cost–Benefit Analysis (CBA), it is found that these interventions lead to a very substantial economic and time saving. Following these interventions it is easier to reach work, hospitals, places for shopping or leisure and visit old people.

Currie et al. [20] analyze the relationship between public transport, social exclusion and well-being. The research focuses on the metropolitan city of Melbourne, focus groups and consultations examine the disadvantages of the population in relation to transport and social life. Public transport is developed only in the city center, therefore

people living in the suburbs, who do not own a car, are obliged to walk and this creates many disadvantages, which justify the number of car owners, which is very high and the car sharing is widespread in this area.

Loader and Stanley [21] report in their document the initiative that the Victoria government has adopted in the metropolitan city of Melbourne. The Bus Association Victoria, in order to solve the problem of public transport, has increased the number of buses and routes and has expanded the hours of service. In addition, the rates have been facilitated for the areas farthest from the center and discounts have been introduced on Sundays, which has led to an increase in weekend trips. The increase of petrol price has also led people, who previously preferred the use of cars, to choose public transport. Through interviews carried out after the interventions, it results that these interventions reduce the social exclusion of the people, who live in the suburbs, have increased social and employment opportunities, have led to a growth in the independence of young people and have contributed to the well-being of the population.

Priya and Uteng [22] summarize the four methods to study the relationship between transport and social exclusion present in the literature (studies on accessibility, qualitative studies, analysis of the potential of a virtual mobility and the activity-based modeling approach). The case study is the social exclusion in Norway due to the high cost of driving licenses. This involves a high social exclusion for people with low-income and within families, it is preferable to have a driver's license for sons rather than for daughters, entailing a disadvantage for girls to find work. Furthermore, the limited availability of public transport in the suburbs makes it necessary to own a car. Through surveys, submitted to the population through direct interviews or postal questionnaires, citizens express a preference for decreasing the price of the driving license rather than towards improving public transport, in this way it is believed that the social exclusion of women and non-western immigrants could decrease. Battellino [23] deals with the problem of public transport in New South Wales (NSW) in Australia. The transport supply does not fully meet the needs of the local communities and the demand often exceeds the supply. Existing services are almost exclusively for the elderly and disabled. The NSW Government has approve the Transport Community Project in which is established the expansion, by buses and cars driven by volunteers, of the public and private transport services in order to allow everyone to move easily.

Lucas and Musso [24], Macario [25] and Lucas and Porter [26] agree that authorities should engage the socially excluded within their planning programmes with the aim of defining solutions to address the question of transport-related social exclusion.

Brennan et al. [27] analyze how housing policies relates to the social inclusion of low-income people, mobility and accessibility in the outer suburbs of Perth, in the Western Australia. Low-income people are forced to live far from the center of the city because in the suburbs houses cost less, this affects the type of work they can perform, moreover in the suburbs there is less accessibility and this involves a dependence on cars or a performance of all activities in the surrounding area. The sale price of houses depends on the location, the characteristics of the dwelling and the accessibility to public transport and urban services. The most appreciated places are those near the center, the railways or near the coast. The proximity to shopping centers and educational facilities is seen negatively. However, people prefer to have larger lots rather than living in the

city center. Carrier et al. [28] compute the level of NO_2 pollution in and around schools in Montreal and find out that schools are located in city blocks where there are fewer major roads than in, and generally similar concentrations of NO_2 to, the rest of the Island of Montreal. However, there are environmental and social inequalities as children from low-income families attend schools with a higher concentration of NO_2, in the surrounding environment and these schools are subject to concentrations higher than the city average.

Markett [29] evaluates the improvement of the lives of the elderly following the introduction of the policy that elders travel free on buses in Britain. The objective of this policy is to improve social inclusion, access to basic needs and increase the use of public transport. The results show that the targets are met by increasing the use of buses especially for people who do not have access to cars. Older people, who have shown poor use of buses, are those who do not have easy access to them, therefore fairness should be improved. Van der Kloof et al. [30] evaluate the impacts that the lessons on the use of the bicycle to immigrant and refugee women have on their participation in activities in the city of Amsterdam through quantitative surveys and a series of in-depth interviews. Especially non-Western immigrant and refugee women are the ones of the population groups most likely to experience accessibility problems and, subsequently, transport-related social exclusion. The bicycle offers considerable potential to increase the mobility of these women. The results show that the impacts of the bicycle lessons vary. Some participants use the bicycle for everyday purposes, while others still find it difficult to drive in traffic or have not yet purchased a bicycle. Respondents say that, the lessons have substantially improved women's feelings of self-esteem and self-confidence, they feel more independent and mentally stronger. In addition, bicycle lessons have made possible to be more informed about the activities of the neighborhood and the city. Maia et al. [31] report the research carried out on the residents of two low-income communities in the Recife metropolitan region of Brazil, a favela of Corque and a peripheral community of Alto Santa Terezinha (AST). Through focus groups, the transport needs and the accessibility of the residents of the two communities are analyzed. For both communities, health services and basic education are easily reachable on foot but the quality of services is very poor. Most respondents do not own a car, Corque participants prefer to walk and rarely use public transport, public transport is widely used at AST. In Corque the main problem is crime and the lack of quality of pedestrian areas, in AST instead the problem is to reach the top of the hill.

Alberts et al. [32] analyze the case of resettlement of urban suburbs in Chennai in India following the introduction of four bus lines and other services such as schools, nurseries, medical centers, gym, ration shops and a police outpost. The study focuses in particular on women who are most affected by the negative effects of resettlement and how they exercise agency in embedding spatial practices within their livelihood strategies to reconnect to the city. Through focus groups and participatory workshops, issues related to job accessibility, services etc. are discussed. The composition of the family has great influence, most of the women interviewed are housewives and move only in the neighborhood, women who instead need to work are led to move away and this involves costs and travel times. The provision of public transport offers access to more opportunities and participation in society thus contributing to social inclusion.

Accessibility and recreating relational spaces may both widen women's opportunities as well as overstretch their physical and financial resources.

Olvera et al. [33] report the growing development of motorcycle taxis in developing cities in Africa, India, Southeast Asia and Latin America. The case study analyzed is that of the city of Lomé in Togo. The presence of motorcycle taxis allows low-income people to move to areas, where public transport is not present, quickly and at an affordable price. Drivers of these vehicles are able to earn enough from the activity to meet their daily needs, but working conditions, health impacts and the risk of accidents mean that the activity is considered temporary, necessary to get out of poverty. It would be important to professionalize employment and thus improve its image, and to facilitate the purchase of a motorcycle would help improving the conditions of drivers.

Ikioda [34] focuses on the consequences of enlarging an urban highway in the city of Lagos. This road will connect Lagos with other important destinations in West Africa, its construction will allow the improvement of business in the city center. On the other hand, however, it causes serious damage to the Agboju and Alayabiagba markets, many traders find themselves without stalls and suffer from serious economic losses. A qualitative study with traders in two markets is used to explore the often ignored implications that large-scale transport development initiatives can have on the livelihoods of urban residents who may attach varying meanings to a road. The objective of improving the urban connection has proved to be a serious problem for groups of poor people living along the highway route. Esson et al. [35] analyze, through an in-depth qualitative research, the mobility of urban residents in different parts of the city of Accra, the capital of Ghana, in relation to their livelihood strategies. The study is conducted through focus groups and semi-structured interviews in four residential areas of the city, the discussion focuses on how three types of businesses (home-based enterprise operators, enterprise operators with a business located elsewhere and itinerant workers) interface with the means of transport for the purchase and sale of goods. The city of Accra lacks a secure transport system for people, this has led to a rapid growth of alternative means of transport such as shared taxis, tro-tros and okadas which in addition to promoting mobility are sources of livelihood for their drivers. It has also been established that the use of mobile phones has changed the way people move in relation to managing their business.

Lucas [36] blames that, although most European cities provide forms of fare subsidies to some low income groups, most do not take into account the effects of transport social exclusion and therefore something should be done in order to change this trend.

Boisjoly and Yengoh [37] highlight how the scarce participation of citizens in local transport planning decision-making processes produces technical plans that are not focused on the needs of the communities. The participatory processes of two boroughs of Montreal, in Canada are analyzed. Interviews are conducted with local planners and representatives of community groups (mainly disadvantaged groups) and planning documents are also viewed. The importance of collaboration between citizens and planners is highlighted in order to facilitate easier access to services and social inclusion. The results show that the presence of a skilled facilitator is the key to support the integration of diverse perspectives on transportation planning. It is also essential to provide community groups with resources to meaningfully participate in the process, thereby promoting social equity. Sterzer [38] studies the impact of the real estate market on

mobility, and in particular the effect on low-income families that cannot afford the high cost of housing in accessible neighbourhoods but cannot even bear the high costs of mobility in less connected suburban areas. The case study is the metropolitan region of Munich. Interviews are conducted with low-income people who have recently moved. There is a strong dependence on public transport to get to work, schools and services, although public transport works well in Munich.

Li and Zhao [39] analyze the case study of migrant workers in central Beijing, China. For migrant workers, the jobs available are poorly qualified, salaries are low, good schools are inaccessible. Interviews are conducted with migrants and the local population. The mobility of migrants is limited, many of them walk or use electric bicycles to move around the neighborhood, there are few trips to visit family members and their social network is limited to people from the same hometown. However, the use of the mobile phone and the community initiatives such as community activities and volunteers have helped to improve their mobility.

3 The Case Study

Tourists were interviewed along some of the main roads, in the south of Italy, managed by ANAS S.p.A. (Azienda Nazionale Autonoma delle Strade, National Autonomous Company of Roads), i.e. the Italian company managing road infrastructures.

The idea of the research derives from the evidence that tourists choose the car as their main means of travel. Even in 2020, a year marked by the COVID-19 pandemic which generated a drop in holidays of about 45%, the car continued to be the most popular transport alternative to travel (73.9%), compared to other transport modes such as plane, train and bus. Even during the summer of the same year, users chose to travel by car. In fact, 81% of holiday trips took place by car, compared to 65.4% recorded during the summer of 2019 (ISTAT, 2021 – www.istat.it).

The choice of using the car to visit the Italian tourist destinations and, therefore, also those in the Campania region, arises from the fact that the road allows trips:

- always available, as there are no restrictions on traveling by road;
- continuous in time and space, in fact through the road it is always possible to travel and go everywhere;
- accessible to anyone because they are fair, regardless of social class and income.

In detail, through the design of a questionnaire, respondents were asked to indicate the route traveled during their trip with respect to which they could express their opinion (using a scale from 1 to 10) relating to four dimensions: road maintenance; road safety; traffic management and quality of service areas (see Fig. 1).

The most suitable road and, therefore, travelled by the tourists interviewed was the Motorway A2 “Autostrada del Mediterraneo” (32.9%), which crosses territories and landscapes not only of the Campania region, but also of the Basilicata and Calabria regions.

Then there is the road 163 “Amalfitana” (31.2%), which, connecting the towns of the Amalfi coast, has a route of about 50 km long, with numerous curves, and it has only one lane in each direction.

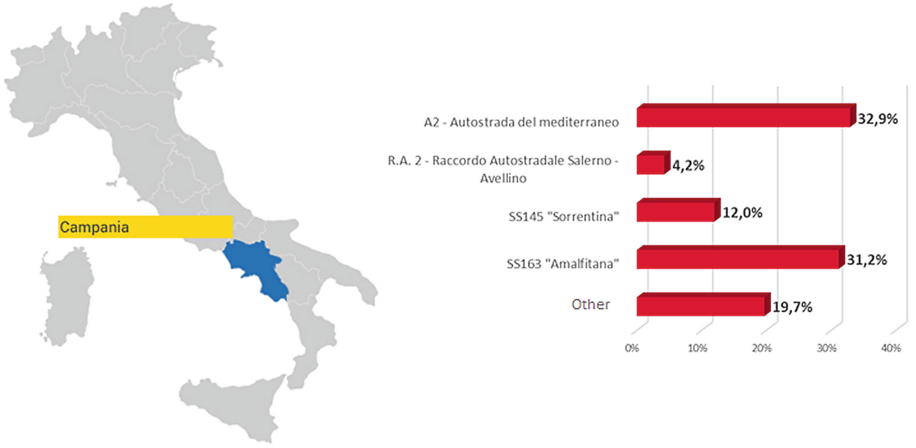

Fig. 1. The roads traveled and indicated by the respondents

3.1 The Survey

Overall, 405 were the respondents and the information collected allowed the estimation of the satisfaction levels, with a probability of 95%, close to the real value of the population itself, with an estimated standard error not exceeding ±5%.

For the data collection phase, the C.A.P.I. (Computer Assisted Personal Interview) method was the one adopted. Specifically, this approach allows direct contact between the interviewer and respondent; it favours the collaboration of the respondent.

The sample was mainly composed by men (64%), aged between 35 and 44 years (27.2%) (see Fig. 2).

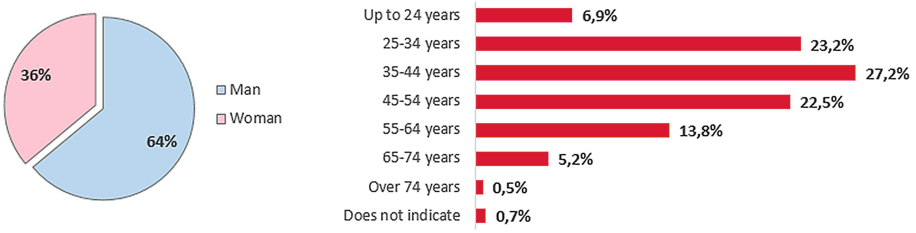

Fig. 2. The gender and age of the interviewees

Overall, 73.1% of the respondents declared they have a job and among them 51% were employed as a clerk (see Fig. 3).

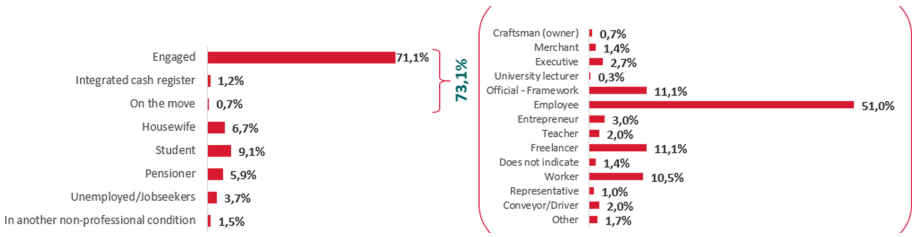

Fig. 3. The occupation the respondents

To analyze the issue of equity and social inclusion in relation to the world of transport, it was decided to divide the sample based on the "income" variable (see Fig. 4).

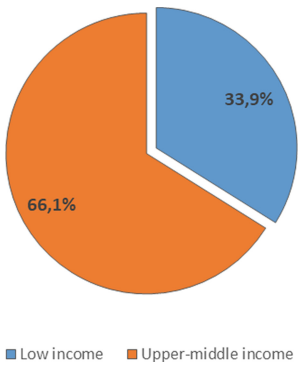

Fig. 4. The sample divided by income

3.2 The Methodology and Results

Structural equation models (SEM) are used to test hypotheses and measure perceptions of impacts. SEM is a statistical modeling technique frequently used in the behavioral sciences. It can be viewed as a combination of factor analysis and multiple regression or as a combination of factor analysis and path analysis (Hox and Bechger, 1998).

In the social sciences it is common to study perceptions that are not directly measurable. They are indicated with the term "constructs" or with "latent variables". SEMs are models capable of modeling complex structures of causality relationships between latent variables starting from a set of real variables, called "manifest" (Kenneth A. Bollen, 1989). The objectives of the SEM are:

– Estimate latent variables as a synthesis of manifest variables;

– Estimate the relationships between latent variables.

To quantify a construct, questionnaires are filled out by individuals within a population. Through the questionnaires, stimuli are given to people who ask for opinions, feelings, etc. The responses serve to measure indicators (or measured variables). Once the indicators have been quantified, it is possible to reconstruct the latent variable that depends on them. SEM consists of two models:

- Structural model (or internal model): it specifies the dependence relationships between the latent variables;
- Measurement model (or external model): specifies the relationships between buildings and their indicators.

Latent variables are divided into endogenous and exogenous. Latent exogenous variables are independent, that is, they are constructs that are not explained by other constructs. In contrast, the endogenous latent variables are dependent, so they are explained by other latent variables.

In the structural model, each endogenous construct is a linear combination of exogenous constructs. The parameters to be estimated are the path-coefficients that bind the endogenous construct to each exogenous construct. Therefore, this model is generally a multiple regression model, unlike the measurement model which can predict even simple regression.

To study a model of structural equations it is possible to consider one of the following two approaches:

- CB-SEM (SEM based on covariance) based on a maximum likelihood estimation procedure;
- PLS-SEM: based on a partial least squares estimation algorithm (PLS).

The PLS-PM (Partial Least Square - Path Modeling) estimates through a system of interdependent equations based on simple and multiple regression the network of relationships between the manifest variables and their latent variables and between the latent variables within the model.

The aim is to provide an estimate of the latent variables so that they are as representative as possible of their block of manifest variables and, at the same time, able to best explain the causal relationships of the structural model.

The PLS-PM is an iterative procedure that allows estimating the external weights, the internal weights and the values of the latent variables, through the alternation of simple and multiple linear regressions. Estimates of the values of the latent variables are obtained through the alternation of internal and external estimates iterated until convergence.

Constructs are represented graphically by circles or ellipses while indices are represented by rectangles (see Fig. 5).

The measurement model is called formative when the construct is defined by the manifest variables. When the construct defines manifest variables, the measurement model is said to be reflexive. Reflexive models are typical of the social sciences because

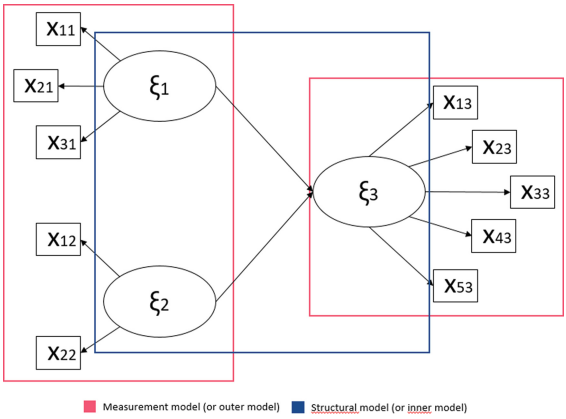

Fig. 5. Structural Equation Models (SEM)

they best describe human attitudes. Furthermore, by adopting the reflexive measurement model, the constructs take on a double characteristic: they are both representative of their own block of manifest variables, and predictive towards any other adjacent constructs (see Fig. 6).

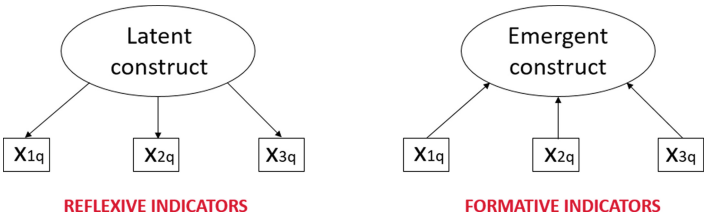

Fig. 6. Reflective model and training model

Once the model has been specified, through SEM it is possible to evaluate its goodness of fit to confirm it or, possibly, reject it. In this sense, SEM allows for a confirmatory analysis. Many researchers use SEM by combining the confirmatory approach with the exploratory approach. If the formulated model is not valid, it can be modified and then re-evaluated. To understand if the model is well structured, goodness of fit indices are used. If the value of each index is within its respective reference range, the model is supported.

The hypotheses underlying the SEM allow to correlate the constructs by means of equations whose coefficients can be estimated and whose significance can be verified. In this study it was decided to use the PLS-SEM approach.

For the data analysis it was therefore chosen to use the Structural Equations Model which represents, among other things, an international standard for the construction of Customer Satisfaction indicators.

During the survey, the hypothesis was formulated and verified according to which the four dimensions identified, namely road maintenance, road safety, traffic management

and the quality of service areas (in the case of motorways) influence the general level of satisfaction of tourists with their travel experience (see Fig. 7).

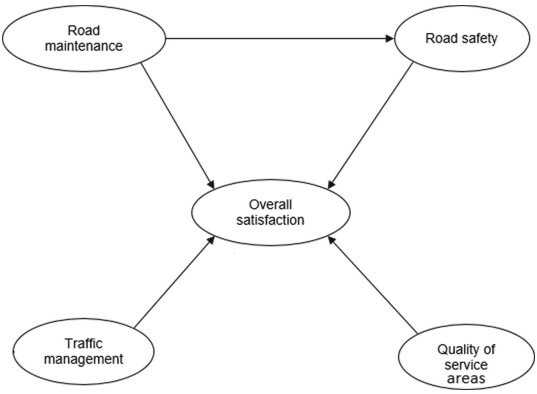

Fig. 7. Theoretical model connecting four dimensions of road management to the overall satisfaction of tourists concerning their travel experience

In line with the concept that the road is fair, accessible to anyone, regardless of social class and income, a further focus of analysis was carried out by dividing the sample of tourists interviewed on the basis of the income class they belonged to.

Tourists with medium–high income expressed a generally higher level of satisfaction with their travel experience (6.2/10) than those with low income (5.8/10). In detail, for both classes, road maintenance is the most satisfactory dimension among the four considered.

Therefore, the respondents with low income demonstrated to be more demanding in terms of the overall management of a street (see Table 1).

Table 1. The levels of satisfaction w.r.t. the four dimensions

	Tourists with medium-high income	Tourists with low income
Road maintenance	6.3	6.0
Road safety	6.2	5.7
Traffic management	5.9	5.4
Quality of service areas	5.9	5.7

A further difference that emerged between the two categories of tourists relates to the dimension that has the greatest impact on the overall satisfaction rating regarding the travel experience: for tourists with medium–high income this is traffic management (54.2%); while for tourists with low income it is road maintenance (45.4%), which represents a “strong point” in Anas’ roads management (see Figs. 8 and 9).

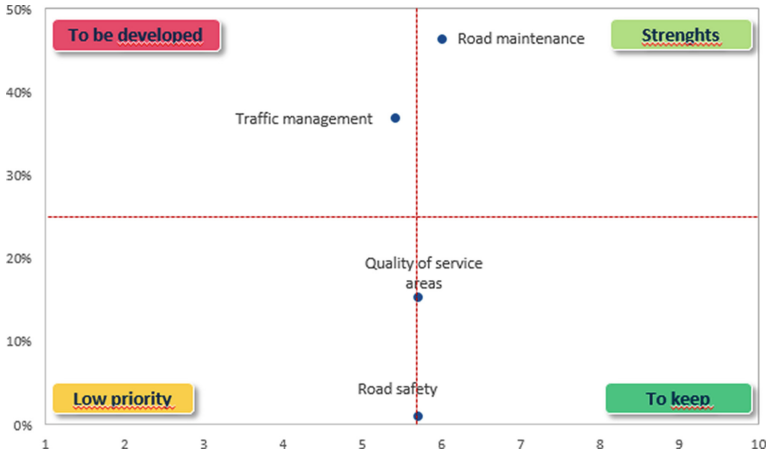

Fig. 8. Quadrant analysis of low income tourists

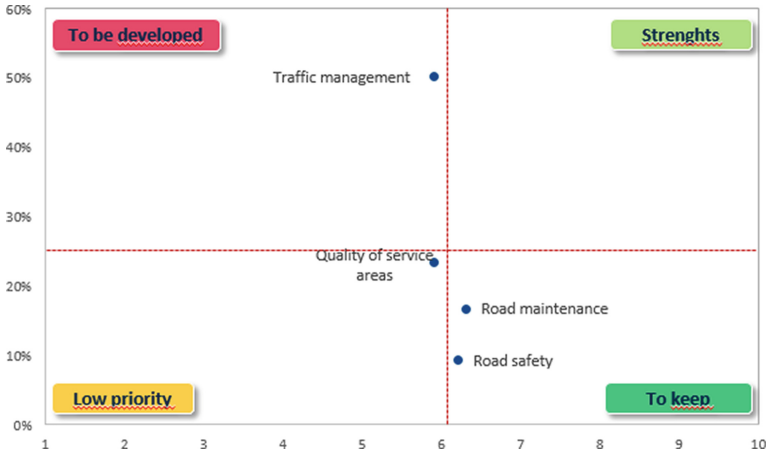

Fig. 9. Quadrant analysis tourists with medium–high income

4 Conclusions

At the centre of debates, there is always the issue of sustainability, resilience, and inclusion also in relation to mobility systems. Given the "nature" of roads, since they are accessible to everybody all, more policies should be introduced to make the other infrastructures more inclusive.

As emerged from the survey conducted, in the management and efficiency of the transport system and mobility in general, it would be appropriate to take into account the different needs of all the users of the transportation system, regardless of their social class and origin.

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