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Modelling the Causes and Measuring the Consequences of Cultural Tourism: The Economic and Cultural Impacts of Cultural Tourist Attractions

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ABSTRACT

A complete view of cultural tourism requires perspectives on both its economic aspect and its cultural dimension. This thesis presents the first cultural tourist taxonomy in the literature, which classifies the various types of cultural tourists by using fundamental distinctions based on economic theory. It also explains the necessity of classifying cultural tourists into those six well-defined categories, and why it should only be six. Building on McKercher and du Cros (2002), it models the causes and measures the consequences of cultural tourism, and develops a framework for evaluating the economic and cultural impacts caused by cultural tourist attractions.

The method of evaluating the economic impact of cultural tourist attractions is based on the causal chain model, and it has improved the approach used in Fernandez-Young and Young (2008) and Young et al (2010), which attributes to an attraction the amount of tourist expenditure at the destination caused by the existence of the attraction. The method of measuring the cultural impact is a new contribution to the literature, as this study provides a way to quantify the complex concept of cultural impact, using the ideas of meta-preferences and preference formation (Sen, 1977; 1983; 2002).

This research has succeeded in developing a theoretically-based and practically applicable method for measuring and combining the economic and cultural impacts of cultural attractions. The methods have been applied to two cultural attractions in Nottingham: Nottingham Contemporary and the Galleries of Justice. The collected empirical results have demonstrated the feasibility and practicability of the evaluation method based on the new taxonomy. The combined evaluation method enables policy-makers to evaluate comprehensively the overall impact of each attraction and
locate the attraction in the cultural space by taking both economic and cultural impacts into account.

**Keywords:** Cultural tourism, cultural tourist taxonomy, meta-preferences, causal chain model, economic impact, cultural impact.
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Chapter 1 Introduction

1.1 Introduction

This research is about cultural tourism, meaning tourism that has a cultural connection. In this short phrase there are three words which invite consideration: tourism, cultural and connection. Tourism is the most straightforward of the three. Some of the literature about the meaning of cultural tourism is reviewed in Chapter 2 below, but the tourism part of it means something like a temporary change of location.

The question of culture is more difficult. Sometimes what is meant is high culture. A visit to Milan to attend an opera at the Teatro della Scala might be an example of cultural tourism. What about a visit to Paris to attend a football match? Some writers would include this as an example of cultural tourism, perhaps drawing a distinction between high culture and low culture (or not). Often, a beach holiday would be agreed not to be cultural tourism. But consider a visitor to England from China who takes a beach holiday for the purpose of understanding the English cultural phenomenon of the seaside holiday. By comparison with the meaning of tourism, the meaning of culture is more nebulous. It would be difficult to find a precise meaning that everyone would agree on. The meanings given to cultural tourism in the literature are reviewed in Chapter 2, but what can be said straight away is that cultural tourism is necessarily about tourism and about culture.

In the argument and analysis which run throughout this thesis, there is the proposition that the meaning of cultural tourism can be clarified and better applied by considering the third word: connection. What can be meant by a connection between tourism and culture? The suggestion made here (in Chapter 4) is that there are two types of
connection to consider. The first is that the tourism may have a cultural cause. The second is that it may have a cultural consequence.

This study investigates how to model causes and measure the consequences of cultural tourism by evaluating the economic and cultural impacts caused by cultural tourist attractions.

Tourism is perhaps the most influential industry in the world economy. According to the World Travel and the Tourism Council (WTTC, 2010), even during the recession year of 2009, the Travel and Tourism industry still employed over 235 million people worldwide, which accounted for 8.2% of all employment and generated 9.4% of world GDP. This is expected to rise to 279.3 million jobs by 2016 (WTTC, 2006).

No matter how culture is defined, cultural tourism is an important part of tourism. WTO and ETC (2005) indicate 20% of city tourists' prime motivator for travelling is culture, while statistics from the World Tourism Organization put this figure at 40% (Richards, 1996a). The Travel Industry Association of America (TIA) has estimated that two-thirds of U.S adults visit a cultural or heritage site or attraction when they travel (Silberberg, 1995).

Although cultural tourists make up a significant proportion of tourists in the tourism industry, the same can be said about many other types of tourism. The literature makes many distinctions between tourism types. Some of these are generally regarded as types of cultural tourism, others are not; probably dark tourism is and beach tourism is not. But what about city tourism, event tourism and gastro-tourism? Among all these types, cultural tourism has a specific character that is absent from some tourism types. A tourist who spends a day on a beach probably enjoys the experience. In just the same way, a tourist who visits an art gallery probably enjoys that. However,
these examples are different to one another because the visitor to the gallery may use the experience to change his point of view, while the beach tourist is unlikely to find this. Both tourists can gain utility from the experience at the time, but the visitor to the gallery may take away with him something of long lasting or even permanent value.

To gain a better understanding of cultural tourism, a small number of cultural tourist typologies have been developed. A cultural tourist typology is a type of classification which separates all cultural tourists into a fixed number of groups, according to their different characters on certain aspects (e.g. choices of destination, travelling behaviour, motivations, age, gender, occupation, etc.) A key feature is that every cultural tourist fits into one and only one of the groups and such a typology is a taxonomy.

A well-designed tourist typology can help the government and the tourism industry to make crucial decisions on investment, product development, promotion, pricing and so on, because a tourist typology can enhance the decision-makers' understanding of tourists' behaviour and the segmentations in the tourism market, and possibility help them with forecasting future trends (Swarbrooke and Horner, 1999).

The majority of typologies are focused on classifying tourists in general. However, McKercher and du Cros (2002) designed a cultural tourist typology that classified cultural tourists into five different types through two dimensions: the importance of cultural tourism in tourists' decision to visit a destination; and the depth of experience gained.

Among all tourist typologies, no real analysis of tourists' behaviour has been done to support or explain the reasons behind why tourists should be classified into a certain number of different groups (Ryan, 1991; Sharpley, 1999). It has been said that some
of the typologies are over-descriptive, and do not help marketers and researchers gain any deeper understanding of tourist behaviour (Mehmetoglu, 2004; Swarbrooke and Horner, 2006).

One obvious consequence of cultural tourism is the economic impact. According to Silberberg (1995), cultural tourism brings significant economic benefit to museums and heritage sites; therefore, accessing the actual economic impact caused by the attraction and investigating ways to increase the volume of tourists visiting is becoming crucially important. The WTO and ETC (2005) also stress that more in-depth and comparable data regarding cultural tourism is needed in future cultural tourism research to gain a better understanding and to react to the fast changing tourism market.

Another equally important consequence is the cultural impact of cultural tourism, which is one of the principal concerns of this research. Matarasso (1997: viii) suggests 50 potential benefits visitors can gain from participating in the arts, for example, 'increase people's confidence and sense of self-worth', 'give people influence over how they are seen by others', 'stimulate interest and confidence in the arts', 'develop pride in local traditions and cultures', 'provide a unique and deep source of enjoyment', etc. Since art is a part of culture, all of the 50 benefits of arts can be seen as examples of cultural impact. In the modern tourism industry, the real cultural tourists are the people who can really sublimate the physical cultural capital to the intangible cultural capital (i.e. gaining cultural value) after their cultural consumptions.

Due to the difficulty of quantifying cultural impact, only very limited empirical evaluation of socio-cultural impact can be found in the literature (Mihalik, 2000; Fredline and Faulkner, 2001; Wall and Mathieson, 2006). Hence, more explorations
need to be done on understanding the value of culture and methods can be used to measure and contrast the cultural impact in different areas (Matarasso, 1999).

1.2 Research Issue

The previous section reasoned that cultural tourism has both an economic and cultural impact. Each of these has been addressed in the literature, to a certain extent, both together and separately. To address the economic and cultural impact together, a thorough understanding of the causes and consequences of cultural tourism is needed. The principal objective of this thesis is to investigate how people come to visit cultural tourist attractions, and what the cultural and economic impacts of their visits are.

Figure 1.1 illustrates the different levels of cultural and economic impacts by using various cultural tourist attractions as examples.

Figure 1.1 Cultural Tourism Impact Space
Although they are real attractions, the attractions marked in Figure 1.1 have been chosen only to illustrate the idea of impact space. The British Museum and the Charles Dickens House (both in London), the Van Gogh Museum (in Amsterdam) and the Galleries of Justice (in Nottingham) are real, but the points representing them in Figure 1.1 are purely conjectural. In a sense, the objective of this research is to make it possible to draw real diagrams in impact space. There are many real impact space diagrams in Chapter 11.

Economic impact and cultural impact are two different aspects of the impact a cultural tourism visit has. Different attractions can be expected to give different combinations of economic and cultural impact. The points in Figure 1.1 illustrate this; the space in which the economic and cultural impacts lie is referred to here as the 'impact space'. The position of an attraction in impact space shows the economic and cultural consequences of visits to the attraction.

Economic and cultural impacts have some things in common. If an attraction is very important in attracting tourists to its destination, it will tend to have a large economic impact and a large cultural impact. On the other hand, if visits to an attraction are incidental to visits to the destination, then the attraction may tend to have a small economic impact and a small cultural impact (e.g. Charles Dickens' House in London). However, the proportion of cultural and economic impacts depends on what the attraction is. One attraction may have a bigger cultural impact than another but a smaller economic impact (i.e. the British Museum vs. the Galleries of Justice). Which of these is preferable depends on the priorities that policy puts on culture and the economy.

From this it becomes obvious that the economic impact of an attraction is not the only impact caused. Only supporting the attractions that cost less than the demonstrable
economic impact would be socially inefficient, as this would mean that policy makers would be failing to support attractions where the cultural impact provides good value for money. In other words, without considering the cultural impact, the total impact of cultural attractions would be underestimated.

Many cultural attractions are funded or subsidised by the public sector. The cost of creating and maintaining an attraction is clear, but the returns from that attraction are less so. The literature suggests that an accurate assessment of the returns must take into account not only the economic, but also the cultural impact. The same rule applies to possible changes in attractions. A change in an attraction may affect the economic impact, the cultural impact or both, with both being able to change independent of the other. However, all changes involve costs, so an accurate assessment of whether the change is worthwhile should take not only the change in economic impact into account, but also the change in cultural impact.

These questions are of immediate importance because of current cuts in funding. However, they will always be important in terms of the reduction or expansion in government spending, in order for policy to be efficient. Assuming the government needs to cut or spend 10 million pounds on cultural attractions in the tourism industry, how they should spend or cut it? In either case, understanding the causes and consequences of cultural tourism is of key importance.

1.3 Research Objectives

This thesis has the following research objectives:

1. To develop a better understanding of cultural tourism by economic modelling of the causes and consequences of cultural tourism;
2. To develop a method of measuring and combining the economic and cultural impacts caused by cultural attractions;

3. To apply this method to two cultural attractions: Nottingham Contemporary and the Galleries of Justice.

In developing an integrated framework to understand and assess economic and cultural impacts, we take an economics-based approach. The reason for this is as follows. The essence of the economic approach applies the reasoning device of a hypothetical rational person. This is a person who acts following decisions and makes decisions by a process of reasoning. In considering what a rational person would do, there is a problem that if people are not rational, then their behaviour is unpredictable, and may not be influenced in a predictable way. Once the rational person is accepted as a reasoning device, they can be used to consider, in a unified way, all the consequences of cultural tourism. We can model the rational person as deciding how much to spend at a cultural tourist destination. We can also model their response to cultural aspects of cultural attractions. An important part of this will be a rational person learning to like. For example, a cultural tourist who is visiting London to go to the Charles Dickens Museum will spend money at the destination, and may also learn to like Dickens’ novels more. Both of these are consequences of the cultural tourist’s visit and they can both be modelled by using the economists’ hypothetical rational person.

In Chapter 4, we develop an economic-based way of categorizing cultural tourists which models both the causes and consequences of cultural tourism, based on the framework of McKercher and du Cros’ (2002) cultural tourist typology. In modelling the causes of cultural tourism, a model of the causal chain which leads to a visit to the destination is constructed. The attraction is one component of the causal chain, and
enables us in theory (Chapter 4) and empirically (Chapter 6, 7 and 9) to evaluate the contribution of the attraction to the visit, and therefore measure the economic consequence of the visit to the destination (Chapter 9).

In modelling the causes and consequences of the cultural impact, the theory of meta-preference\(^\text{1}\) (Sen, 1983; 2002) was also integrated into the model to assist with understanding why people choose to visit the attractions in preference theory (Chapter 4), and to help to evaluate the cultural outcomes after their visits to the attractions (Chapter 6, 7, and 10).

1.4 Terminology

In this study, there emerges a new way of defining such terms as cultural tourist. However, as a starting point, we adopt the following provisional meanings:

A cultural tourist is defined as a tourist who travels to a place which is away from home, and visits cultural attractions and events (e.g. museums, galleries, cultural heritage related attractions, cultural events, etc.), while he/she is there.

Cultural tourism is a type of tourism, and represents people travelling to destinations which are away from home, for the purpose of experiencing and visiting culture related attractions and events.

A visit to a destination caused by the attraction means a tourist visited a destination (e.g. city, town, region, etc.) fully or partially because the attraction is located in that area. Without the attraction being there, the visit may not take place.

This is what is meant in this thesis by cultural tourists, cultural tourism and attractions. New and more precise definitions are given in Chapter 11.

\(^{1}\) Meta-preference: preference over his/her own preference function.
1.5 Thesis Structure

This thesis is organised into twelve chapters, plus two appendices. This chapter provides a background to the research issues and identifies the research objectives of this research. It also outlines the structure of the thesis.

Chapter 2 reviews the literature on research-related theories, such as cultural tourism, cultural tourists, tourist/cultural tourist typologies, authenticity, the causal chain model, utility and preference function and evaluating the economic and cultural impacts of tourism. The review helps the readers to gain an understanding of the underpinning theories of this research and to identify the gaps in the relevant literature.

After a comprehensive literature review, Chapter 3 presents the research methodology and design used in this study. A structured flow chart of the whole research design for this study is given and discussed. The process of the data collection is based on both qualitative and quantitative research methods, which includes two stages: focus groups and survey collections at two comparable cultural attractions in Nottingham.

This is followed by the essence of this thesis, Chapter 4: a theoretical model. This chapter explains how the theoretical economic modelling of the causes and consequences of cultural tourism (a newly developed cultural tourist taxonomy) was constructed by integrating the theories of causal chain model, meta-preference, utility function (or preference function) and cultural tourist typology, and provides a solid economic clarification of why the taxonomy should be based on a two-by-three matrix.

The main empirical part of the research was measuring economic and cultural impacts of two cultural attractions in the city of Nottingham: Nottingham Contemporary (NC) and the Galleries of Justice (GOJ). This required two surveys. These were preceded by focus groups. Chapter 5 presents how the focus groups were planned and organised
and it explains the key findings of the focus groups and how the results of the focus groups helped with modifying the cultural tourism taxonomy and designing the four versions of the questionnaires. This chapter also discusses how the surveys were conducted at NC and the GOJ.

Chapters 6, 7 and 8 present the findings of the survey results collected at NC and the GOJ. Chapters 6 and 7 give overall discussion of the results collected at NC and the GOJ respectively, while Chapter 8 provides a detailed comparison between the two attractions.

Chapter 9 explains how the economic impact to the city of Nottingham caused by the tourists' visits to NC and the GOJ should be evaluated by using the method and theories developed in Chapter 4. It also discusses the survey results' distribution at NC and the GOJ across the newly developed cultural tourist taxonomy.

Chapter 10 presents the newly designed method used for evaluating the cultural impacts of the attractions, and demonstrates how this method was applied to both survey sites. The collected empirical results of the economic and cultural impacts (Chapters 9 and 10) at the two attractions demonstrate the feasibility and practicability of the evaluation method based on the new cultural tourist taxonomy.

Chapter 11 focuses on discussing the implications of the economic and cultural impacts' results of NC and the GOJ. It gives suggestions to policy makers regarding how the estimated annual economic and cultural impacts' results can assist with their future decision-making. For future measurements, it raises the need to give a monetary value to each unit of cultural capital that visitors gain at attractions.
Chapter 12 concludes this thesis, presenting the theoretical and empirical contributions and limitations of this research by reviewing the three research objectives, and gives suggestions for future research.

Appendix I gives a list of potential social and cultural effects taken from Matarasso (1997), while Appendix II includes all versions of survey questionnaires used at NC and the GOJ.
Chapter 2 Literature Review

2.1 Introduction

Chapter 2 presents a review of the literature that is related to this research study. It consists of several apparently unrelated parts. However, the research has involved creating new combinations of ideas from different disciplines which bring the apparently unrelated parts together.

The first few parts of the literature review consist of topics which set a context for the research (the tourism industry, cultural tourism, cultural tourists, and tourist typologies). Authenticity is a topic of general interest in cultural tourism and some literature on it is reviewed in Section 2.6. In this study, authenticity has a particular interest related to both the causes and the consequences of visits to cultural tourist attractions.

Since culture is an essential aspect of cultural tourism, Section 2.7 reviews literature relating to cultural capital. This is particularly relevant because the theoretical model developed considers one consequence of cultural tourism in a way that can be seen as an increase in intangible cultural capital derived from tangible cultural capital.

Modelling the causes of cultural tourism involves tracing the events which lead to a visit to a destination in which there is a cultural attraction. The theoretical method for doing this is a causal chain model recently introduced into the tourism literature. This literature is reviewed in Section 2.8.

In the economics context, acts are based on rational decisions which refer to preferences. In Section 2.9, there is reviewed a specific part of the literature on preference theory, relating to the idea of meta-preferences. Meta-preferences are
preferences about preferences. The relevance of this is that cultural tourism may involve a tourist following her preferences or changing her preferences.

Finally, in Section 2.10 and 2.11, the literature on economic impact and cultural impact of tourism are reviewed.

2.2 An Overview of Tourism Industry

In Chapter 1, there is asked a question about what can be meant by cultural tourism. This amounts to asking about the relationship between cultural tourism and tourism in general. The conclusion reached in Chapter 11 about this involves a strong but flexible connection between cultural tourism and general tourism. It is therefore appropriate to review some issues with respects of tourism in general.

In the 21st century, the tourism industry is changing unpredictably in a turbulent environment (Cooper and Hall, 2008), and the tourism industry comprises all businesses which provide goods or services for leisure and pleasure activities for people who are away from home (Smith, 1988). In 1991, at the WTO conference on tourism statistics, the term ‘tourism’ was defined as ‘the activities of a person travelling outside his/her usual environment for less than a specified period of time and whose main purpose of travel is other than exercised of an activity remunerated from the place visited’ (cited in Chadwick, 1994:66). Tourism travel is a relatively recent phenomenon; Urry (1995) indicates the idea of leaving one’s home and workplace in order to seek and gain pleasures is a popular way of enjoying one’s life. Before the 19th century, apart from the upper classes, very few people had the opportunity to travel to destinations they desired to, especially for non-work (Urry, 1995).
Many researchers (Craik, 1997; Hall and Weiler, 1992; Mowforth and Munt, 1998) say that the international tourism industry has changed and developed considerably during the past two decades. Increasingly, many people are willing to spend money on holidays and travelling and, therefore, new patterns of tourism consumption and production have emerged. According to the statistics from the World Travel and Tourism Council (2006), the travel and tourism economy supports 234.3 million jobs worldwide. This represents 8.7% of total employment or 1 in every 11.5 jobs, and this will rise to 279.3 million travel and tourism related jobs by 2016 (WTTC, 2006).

As tourism is becoming one of the largest and fastest growing industries in the world, and one of the biggest income generators, tourists are demanding more than before, so stakeholders need to diversify promotion of the industry, and also make their products more distinctive. New types of tourism are becoming more flexible, sustainable and individual-oriented, because people like to feel rewarded and enriched, and to gain learning experiences.

With the tourism industry changing and developing dramatically, Poon (1993) coined the term ‘new tourism’ which includes the following features. The holiday is getting more flexible: because of economies of scale, tourists can travel to places at competitive prices. Tourism related services are marketed, produced and tailored for individuals, according to their different needs, incomes, time constraints and travel interests. Holidays are consumed by more experienced tourists, and they are also more educated, more destination-oriented, more independent, more flexible and more environmentally-friendly. The environment and culture of the destination are considered as key parts of the holiday experience by consumers of new tourism. The emergence of the new tourism industry requires stakeholders and marketers to tailor tourism packages, promoting cultural tourism sites from different angles at the right
place, to the right tourists, since the mass marketing strategy should not be the
dominant one anymore. Krippendorf (1987) also stresses that tourists are getting more
determined to gain satisfaction from all different areas in their life, and in order to
drive them away from a fulfilling job and joyful life, the travelling must provide
something extra or unique to attract the potential tourists.

Swarbrooke and Horner (2006) stated the most popular debate in tourism literature
during the last two decades is how to define tourists and travellers. Horner and
Swarbrooke (1996) stress those two terms represent two different types of visitors,
and they define a tourist as someone who buys a package from a travel agency, and a
traveller as a person who makes his/her own travel itinerary and bookings for a
holiday. Horner and Swarbrooke (1996) says that travellers are increasing in numbers
relative to tourists and more people still prefer to be seen as travellers rather than
tourists, even if they buy tourist packages. Cooper and Hall (2008) points out that the
contemporary tourists are demanding, empowered, knowledgeable and intelligent.
They prefer to have more control rather than to be passive in the marketing process.

The tourism industry as a whole is comprised of many sub-types of tourism including
cultural tourism, business tourism, health tourism, social tourism, educational tourism,
religious tourism, activity tourism, etc. Although the method of dividing them can be
subjective, the beneficial side of separating tourism into different types is that more
focused marketing strategies can be developed for each specific type of tourism
industry (Swarbrooke and Horner, 2006). According to statistics from the World
Tourism Organization, nearly 40% of all tourist trips are related to cultural tourism
(Richards, 1996a). Moreover, the Travel Industry Association of America has also
estimated that two-thirds of U.S adults visit a cultural or heritage site of attraction
when they travel (Silberberg, 1995). Because cultural tourism makes up a large
proportion of the tourism industry, it is worth investigating this subtype of tourism further, as in the sections below.

2.3 Cultural Tourism

As for defining cultural tourism, the question seems very simple, but it is not easy to find a comprehensive definition. There is no single definition that is accepted by all researchers, since cultural tourism covers a wide range of activities. However, most of the definitions of cultural tourism involve the consumption of culture by tourists (Hughes, 2002; McKercher and du Cros, 2002). The various definitions cause complications, as it is not always clear if researchers or commentators are discussing the same subject. Therefore, researchers need to adopt the most appropriate and related definition in their research projects (WTO and ETC, 2005).

Although culture tourism can be defined in a variety of ways, they can all be classified into two main categories. The first category consists of definitions given by researchers who are focused on defining cultural attractions (Silberberg, 1995; Fyall and Garrod, 1998; Gee and Fyos-Sola, 1997); whereas, the other category is made up of definitions concentrating more on analyzing the motivations and perceptions of visitors (Richards, 1996a; Poria et al, 2001; Zeppel and Hall, 1991).

For instance, Silberberg (1995) defines cultural tourism as people who travel outside of their own communities, and are motivated wholly or partly by the destination's culture, which includes local history, art, science, lifestyle, and heritage. Gee and Fyos-Sola (1997) says that cultural tourism is the segment of the tourism industry in which people travel to places because of special cultural attractions. They also stress that cultural tourism is different from region to region, as it also depends on how developed the region is. In developed regions, cultural attractions include museums,
galleries, plays and musical concerts, etc. However, in less developed areas, they also
cover traditional religious practices, handicrafts and more cultural-oriented markets or
events. Richards (1996a) takes the motivation approach and gives cultural tourism a
definition as the motion of people which is caused by cultural attractions that are not
in their daily place of residence. These people always intend to gather new
experiences to satisfy their cultural needs. This means some cultural tourists also treat
cultural tourism as a learning process.

Silberberg (1995) notes that cultural tourism products include all culture-related
attractions, local people's lifestyles, cultural heritages, festivals, events, etc. In reality,
there are links between different cultural tourism products, for instance, cultural
events or festivals are normally held in locations with cultural associations.

The WTO and ETC (2005) suggest the following opportunities for city cultural
tourism: the result of data sets collected by WTO and ETC indicates 20% of city
tourists are culture tourists. In other words, their prime motivator for travelling is
culture. In fact, far more tourists are involved in cultural activities while they are
visiting destinations, but it is just that they do not see themselves as cultural tourists.
Moreover, the ATLAS data indicates museums are the most popular cultural
attractions that people would like to visit. As for the demographic developments in
Europe, the group of potential travellers who strongly like cultural tourism and are
also older than 55 years will grow significantly in the coming 10 to 15 years, which
means the total number of cultural tourists is expanding among various age groups
(WTO and ETC, 2005).

According to Silberberg (1995), cultural tourism brings significant economic benefit
to museums and heritage sites; therefore, investigating the ways to increase the
number of tourists is becoming crucially important. Hence, cultural heritage managers
and policy makers need to re-analyze their operational policies and practices by focusing more on customer-orientated service through entrepreneurial approaches, under the condition of heritage preservation and educational objectives. The report of WTO and ETC (2005) also stresses that more in-depth and comparable data concerning cultural tourism are needed in future cultural tourism research, to gain a better understanding and react to the fast changing market.

This study not only aims to gain a better understanding of cultural tourism by economic modelling of the causes and consequence of cultural tourism, but also intends to measure and combine the economic and cultural impacts caused by two cultural attractions. Cultural tourism should therefore be defined by concentrating more on analyzing the motivations and perceptions of tourists (i.e. the motivation approach) and considering the proportion of the visit that can be credited to the cultural attraction.

In terms of this research project, the most appropriate way of defining cultural tourism is the movement of people from their normal place of residence that is motivated wholly or partly by the destination’s culture (e.g. visiting cultural attractions, participating in cultural events and activities, etc.).

2.4 Cultural Tourists

After defining and discussing ‘cultural tourism’, the definition of cultural tourists and other related issues are reviewed in this section.

Cultural tourists are people who participate in, and play one of the most important roles in, the cultural tourism industry. Defining cultural tourists has the same problem as defining cultural tourism, as so many different definitions exist in the literature, and researchers define the term differently according to their own purposes. The
simplest way of defining a cultural tourist is as a person who visits cultural attractions or participates in cultural activities or events.

In the last two decades, many studies have classified cultural tourists using data in empirical studies. Disposable income, level of education and socio-economic status are the factors that have been widely used to explain cultural tourists' behaviour. Many researchers identify educational background is one of the crucial determining elements of cultural tourism participation (Bauer, 1996; Richards, 1996a; Roth and Langemeyer, 1996; Lord, 1999). Richards (1996a) reports that a study of European museums shows that tourists' level of education has more influence than their income on their attendance at museums. Through a study of cultural tourists in Germany, Roth and Langemeyer (1996) also found that the highly-educated tourist group is the most highly represented one among all different types of cultural tourists. Silberberg (1995) also indicates the higher education level and income the person has, the more likely he/she is to be more interested in culture.

McKercher and du Cros (2002) take the view that in deciding whether to identify a tourist as a cultural tourist, 'centrality' plays a critical role, meaning (essentially) whether or not a cultural element is central to the purpose of the visit. For instance, should a VFR (visiting friends and relatives) tourist who visited a cultural heritage attraction while on the trip be classified as a cultural tourist? Should one label as a cultural tourist a person who was on a business trip but went to a non-work related cultural event before he returned home? It is very hard to give a definite answer, since it is not certain whether those visitors travelled to a city or stayed longer in a city because that place has more culture attractions/events or due to visitors having more time to spend in that city, so they visited culture-related places. In reality, this can happen either way. McKercher and du Cros (2002) clearly state that to give an
accurate answer to the above questions, the centrality of their visits need to be resolved first, and they define a cultural tourist as someone who visits a cultural related attraction (e.g. museum, art gallery, historic site) or attends a cultural event or festival at some point during their visits, but disregard his/her primary reason to travel to that destination.

As for marketing purposes, the timing of the decision-making to visit a particular cultural attraction has very interesting and crucial results, since it indicates when and where the potential consumer should be reached and promoted. The ATLAS results show the majority of cultural tourists decide where they want to visit before leaving home; whereas 30% of visitors decide when they arrive at the destination. Moreover, the ATLAS results also indicate people who plan their trips before arriving at the destination were significantly older and less well-educated, but with higher incomes. The younger and the more highly educated tourists were more likely to wait until they arrived at the destination, and then choose which attractions to visit (WTO and ETC, 2005).

2.5 Typologies and Discussion

2.5.1 Tourist Typologies

The issue of the terms ‘tourist’ and ‘cultural tourist’ being hard to define was raised in Sections 2.3 and 2.4. However, researchers have found another method to deal with the problem, by identifying the differences among all tourists and classifying them into various groups (not only cultural and non-cultural). In this section, some of the well-known tourist classifications and typologies summarized in Mehmetoglu (2004), Decrop and Snelders (2005) and Swarbrooke and Horner (2006) are presented and discussed.
Cohen (1972) identified four types of tourist based on how they organise their trips and what activities they participate in at their destination. The first type is organised mass tourists (i.e. people who buy a package holiday to a popular destination with a pre-decided itinerary and like to travel with a large number of other tourists). The second type is the individual mass tourist, who buys a flexible package, which gives him more freedom, such as a fly-drive holiday; this kind of tourist still tends to visit the normal tourist attractions. Cohen (1972) classifies together the foregoing two types of tourists as the institutionalized traveller, and their travels are less adventurous and more comfortable because they use the travel agencies to organise trips for them. In contrast, the other two types are non-institutionalized. These are ‘the explorer’ type and ‘the drifter’ type. The explorers arrange their own travel, and try to avoid contact with other tourists. They like experiencing the local people’s life and make contact with the local people as long as the activities are within their boundaries of security and comfort. As for the drifters, they try their best to be accepted by the local community and avoid the formal tourism industry. They also do not have organised plans for their trips.

Plog (1974) divided tourists into the following categories by linking people’s personality characteristics with their tourist behaviour. This approach leads to five tourist types: psychocentrics, near-psychocentrics, mid-centric, near-allocentrics and allocentrics. The two extreme types of tourists are the psychocentrics who prefer fewer adventures and tend to visit popular tourist attractions and the allocentrics who like taking risks and seek more adventure holidays. Plog (1974) also indicates that allocentrics prefer exotic destinations and travel by themselves rather than following a large number of people.
Perreault *et al* (1979) designed a five-group classification of tourists by focusing on tourists’ observed travelling behaviour, based on a survey of 2000 householders. The five different types are: 1) Budget travellers: people who had a medium level of incomes, but preferred to take low-cost vacations; 2) Adventurous tourists: who were well educated, and liked to take risks and enjoyed adventurous holidays; 3) Homebody tourists: who were very cautious about taking holidays, did not take other people’s opinions, and hardly spent any time planning their trips; 4) Vacationers: a small group of people who spent a lot of time considering their future holiday and tended to be active people in lower paid jobs; 5) Moderates: people who have high intentions to travel and did not like weekend breaks or sports.

Cohen (1979) also designed a five-group classification of tourists based on different desired tourist experiences. The proposed five types are: 1) the recreational tourist, who focuses on physical recreation; 2) the diversionary tourist, who seeks ways to be away from their daily life at home; 3) the experiential tourist, who looks for authentic and factual tourism experiences; 4) the experimental tourist, who is keen to get close to the local people; 5) the existential tourist, who wants to be fully engaged with the culture and lifestyles of the vacation destination. However, Sharpley (1994) criticized this classification, since it is only a mechanical categorisation, and not based on any empirical research.

Through analyzing the purposes of tourists’ travelling, Pearce (1982) also managed to group tourists into five different types: 1) Environmental travel (anthropologists, conservationists and explorers); 2) High contact travel (travellers, overseas students and foreign journalists); 3) Spiritual travel (hippies, religious pilgrims and missionaries); 4) Pleasure first travel (jet-setters, tourists and holidaymakers); 5) Exploitative travel (businessmen and jet-setters). Furthermore, Pearce (1982)
observed that not all of the tourists travel for pleasure, giving the examples of businessmen and journalists. Therefore, researchers need to analyze tourists' behaviour not only from the emic angle but also from an etic point of view.

Westvlams Ekonomisch Studiebureau (1986) created a more detailed typology with seven types of tourists by using data from a survey of 3000 Belgians. The typology includes: 1) Active sea lovers, who like to spend a holiday by the sea, and enjoy their time on a beach; 2) Contact-minded holidaymakers, who are keen to meet new friends during the holiday vacation, and like to get closer with the local people; 3) Nature viewers, who like enjoying the very nice landscapes, and also to be well-hosted by the local population; 4) Rest-seekers are people who treat the holiday as a chance to relax and rest; 5) Discoverers, who prefer cultural holidays and some adventure, but meeting new people is also a part of their interests; 6) Family-orientated sun and sea lovers are the largest group of tourists who like enjoying the activities together with their own family, and always seek 'child-friendly' activities; 7) Traditionalists, who are very risk averse, so they try their best to avoid surprises by always spending their holidays at familiar tourism destinations.

Three years later, Dalen (1989) used a survey of 3000 individuals in Norway and classified tourists into four different groups. The first group is 'modern materialists', who are motivated by hedonism, and love to be tanned, to impress people when they get home after their holiday. Moreover, drinking, partying and eating play the main role in their holiday. The second one is 'modern idealists', who also seek excitement and a lot of fun. However, they are wiser than the modern materialists, and they do not spend holidays with mass tourists or fixed itineraries. 'Traditional idealists' is the third, and they like to pursue quality, culture, heritage, famous and popular places, peace and safety. The last type is 'traditional materialists', who always look for
bargains in the tourism industry, and they are very careful about their personal security.

In the same year, Gallup and American Express (1989) commissioned a larger-scale survey, twice the size of Dalen's (1989). In total, 6500 people participated in the survey among the following countries: the USA, the UK, West Germany and Japan. A five-type classification was proposed: 1) Adventurers, who like to experience new activities and are much more independent and brave than normal tourists; 2) Worriers, who become very stressed during the holiday, and worry about their safety and security; 3) Dreamers, who are tourists who really love the idea of travelling. They read and talk often about their travel experiences at different destinations; 4) Economizers, who always want to find special offers for their holidays, and only treat holidays as opportunities for relaxation; 5) Indulgers, who just want to be pampered during their holidays.

Decrop and Snelders (2005) summarized all of the important tourist typologies in the literature by categorizing them into three groups: 1) segmentation criteria; 2) sociopsychological variables; 3) decision-making variables.
### Table 2.1 Tourist Typologies Based on Segmentation Criteria

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Major variable(s)</th>
<th>Tourist types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anderson and Langmeyer (1982)</td>
<td>Age</td>
<td>The under-50 and over-50 travellers</td>
</tr>
<tr>
<td>Etzel and Woodside (1982)</td>
<td>Distance traveled</td>
<td>Distant and near-home travellers</td>
</tr>
<tr>
<td>Fodness (1992)</td>
<td>Family life cycle</td>
<td>Young couple, young parents, mature parents, mature couple, senior couple</td>
</tr>
<tr>
<td>Lang, O'Leary, and Morrison (1997)</td>
<td>Destination</td>
<td>Within-Asia and out-of-Asia (Taiwanese outbound tourists)</td>
</tr>
<tr>
<td>Shoemaker (1994)</td>
<td>Benefits sought</td>
<td>Get a way/family travellers, adventurous/educational travellers, gamblers/fun oriented travellers</td>
</tr>
<tr>
<td>Spotts and Mahoney (1991)</td>
<td>Expenditure</td>
<td>Light, medium and heavy spenders</td>
</tr>
<tr>
<td>Woodside and Jacobs (1985)</td>
<td>Benefits sought</td>
<td>Rest and relaxation, cultural experiences, family togetherness</td>
</tr>
<tr>
<td>Woodside, Cook, and Mindak (1987)</td>
<td>Frequency of travel</td>
<td>Light and heavy travellers</td>
</tr>
</tbody>
</table>

(Adapted from: Decrop and Snelders, 2005:122)

Decrop and Snelders (2005) states typologies in Table 2.1 are based on segmentation criteria. They are very useful for marketing operations, positioning and destination selection purposes, because many segmentation variables (e.g. age, family life cycle, expenditure, distance, etc.) were taken into consideration when researchers created these typologies. However, they are not that useful for making strategic marketing plans as they do not describe tourists' lifestyles, motivations and personal values. In addition, the segmentation criteria are all separated and there is no one integrated theory or model which can unify them.
Table 2.2 Tourist Typologies Based on Socio-psychological Variables

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Major variable(s)</th>
<th>Tourist types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cohen (1972)</td>
<td>Roles, motives and level of risk aversion/novelty seeking</td>
<td>Drifter, explorer, individual mass and organised mass</td>
</tr>
<tr>
<td>Cohen (1979)</td>
<td>Roles, motives and sought experiences</td>
<td>The recreational, the diversionary, the experiential, the experimental and the existential tourist</td>
</tr>
<tr>
<td>Davis et al (1988)</td>
<td>Attitudes, interests and opinions</td>
<td>Five clusters of differing degrees of attitudes towards the state's tourism efforts</td>
</tr>
<tr>
<td>Madrigal and Kahle (1994)</td>
<td>Values and lifestyles</td>
<td>External locus of control (sense of belonging and security), enjoyment/ excitement, achievement, egocentrism</td>
</tr>
<tr>
<td>Mayo and Jarvis (1981)</td>
<td>Psychographics</td>
<td>The 'peace-and-quiet' traveller, the overseas traveller, the historian traveller, the recreational vehicle traveller and the 'travel now/pay later' traveller</td>
</tr>
<tr>
<td>Mazanec (1994)</td>
<td>Socio-styles</td>
<td>Dandy, rocky, business, squadra, protest, scout, pioneer, olvidados, vigilante, romantic, defence, prudent, moralist, citizen, gentry, strict</td>
</tr>
<tr>
<td>Plog (1974, 1994)</td>
<td>Personality traits</td>
<td>Psychocentrics and allocentrics (plus intermediate categories: near-psychocentrics, midcentrics, near-allocentrics)</td>
</tr>
<tr>
<td>Smith (1989)</td>
<td>Motives and lifestyles</td>
<td>Explorer, elite, offbeat, unusual, incipient mass, mass, charter</td>
</tr>
<tr>
<td>Thrane (1997)</td>
<td>Personal values</td>
<td>The modern materialist, the modern idealist, the traditional materialist and the traditional idealist</td>
</tr>
</tbody>
</table>

(Adapted from: Decrop and Snelders, 2005:122)

In the literature, many tourist typologies are designed from a sociological perspective (see Table 2.2). Decrop and Snelders (2005) believe socio-psychological typologies provide a more integrated view of tourists, because these typologies describe tourists' behaviour through values, lifestyle, motives, interest, etc.
<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Major variable(s)</th>
<th>Tourist types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bargeman et al (2002)</td>
<td>Sequence of decisions (frequency, duration, timing, destination, temporal and spatial sequence, spatial repetition)</td>
<td>Groups I-VIII</td>
</tr>
<tr>
<td>Bronner and De Hoog (1985)</td>
<td>Decision styles (socio-demographics, vacation ideas and choice characteristics)</td>
<td>Nature seeker, sun and beach seekers and culture seekers</td>
</tr>
<tr>
<td>Fodness and Murray (1998)</td>
<td>Information search strategies</td>
<td>Prepurchase mix, tourist bureau, personal experience, ongoing, on-site, automobile club and travel agency</td>
</tr>
<tr>
<td>Hsieh et al (1997)</td>
<td>Travel philosophies (how people think about and prefer to travel in overall), benefits sought and product preferences</td>
<td>Active/heritage/outdoor sports, reluctant/social escape/outdoor sports, budget/escape/cultural scenic, active package/being and seeing/destination attributes, low-yield and high-yield travellers</td>
</tr>
<tr>
<td>Reid and Crompton (1993)</td>
<td>Level of involvement and the ability to differentiate between attributes</td>
<td>Hierarchy-of-effects, dissonance-attribution hierarchy, alternative attribution hierarchy, low involvement hierarchy, single/integrated hierarchy</td>
</tr>
</tbody>
</table>

(Adapted from: Decrop and Snelders, 2005:123)

Decrop and Snelders (2005) stated that although the typologies based on decision-making variables are useful for both theoretical and practical reasons, the majority of them, aside from Reid and Crompton (1993), only consider decision-making variables, and do not take the method of decision making into account.

After summarizing the previous created tourist typologies by other scholars, Decrop and Snelders (2005) proposed a new typology of vacationers, which was based on socio-psychological and decision-making variables. This typology is empirically grounded, based on data collected from 25 Belgian households through a year of using an in-depth interview method. The results indicate that tourist decision-making is a continuing process that contains many contextual influences. This new designed typology contains six types of vacationers: the habitual vacationer, the hedonic...
vacationer, the opportunistic vacationer, the constrained vacationer, and the adaptable vacationer. Decrop and Snelders (2005) says that the strength of this typology is that it integrates both practical and theoretical variables, and so it provides researchers and marketers with a more comprehensive view of how different tourists make decisions in terms of vacations. Cohen (1974), Pizam et al, (1978), Lieper, (1979) and Morley (1990) all believe that the tourist’s decision to travel plays an important role in planning, marketing and supply of tourism facilities by tourism organisations. They believe such a decision is often related to the tourist’s previous behaviour, motivations and their real needs. However, there is no one typology that can speak for the universal decision-making process.

2.5.2 Cultural Tourist Typologies

All of the typologies discussed in Section 2.6.1 are general tourist typologies. In recent years, more and more tourists are travelling for culture related purposes, and the importance of cultural tourists is gaining recognition. Antolovic (1999) pointed out that 70% of Americans travel to Europe for cultural tourism reasons and approximately 67% of tourists who visit the United Kingdom are partly seeking a cultural heritage experience. DKS’s (1999) study indicates 26% of leisure travellers to Pennsylvania participated in culture heritage related activities. In this section, the cultural tourist typologies in the literature are reviewed.

Bywater (1993) focuses on cultural tourists alone, and separates cultural tourists into three categories according to their different kinds of motivation. The categories are: 1) the genuine cultural tourist who chooses to visit a certain place purely because of cultural aspects; 2) the culturally inspired tourist who makes the visit because of one particular attraction or event; 3) the culturally attracted tourist who chooses to visit the destinations because they like two or more cultural attractions there.
In a similar vein, Silberberg’s (1995) study in Ontario, Canada also identified four different types of cultural tourists based on the various levels of motivation, which are as presented in Figure 2.1 below. From the most central circle to the outermost circle, the four types are: 1) Greatly motivated, tourists who are specifically attracted to a destination because of its culture; 2) Partly motivated, people visit the destinations not only out of interest in cultural attractions, but also for other purposes; 3) Adjunct motivated, cultural tourists for whom the culture of the destination plays an adjunct role to another more important motivation; 4) Accidentally motivated, tourists who travel to cities and do not intend to take part in any cultural activities but, while they are there, the unplanned cultural activities take place.

**Figure 2.1 Degree of Consumer Motivation for Cultural Tourism**

Promotion increases consumer motivation to participate in cultural activities.

Packaging increases consumer exposure to cultural activities thereby appealing to a larger market.

(Silberberg’s (1995) results show that among tourist visitors 15% are greatly motivated, approximately 30% are partly motivated, 20% are adjunctly motivated, and about 20% are accidentally motivated. The other 15% of tourists interviewed are not interested in
culture. Therefore, Silberberg (1995) suggests, a strategy for cultural tourism needs to be designed wisely according to the various cultural tourist groups and, in particular, to move more people towards the centre of the circle.

Richards (1996a) divides cultural tourists into two groups: specific cultural tourists and general cultural tourists. He identifies the differences between those two types in accordance with a European Association for Tourism and Leisure Education (ATLAS) cultural tourism project. Specific cultural tourists are people who travel specifically to visit a cultural attraction or attractions. For those people, the attraction plays a very important role in their decision-making process. However, the ATLAS study found only 9% of the tourists who visit Europe can be categorized as specific cultural tourists. According to this, most cultural tourists are general cultural tourists, for whom cultural attractions play a less important role.

DKS's (1999) study separated cultural tourists to Pennsylvania into three different types: core heritage travellers; moderate heritage travellers; and low heritage travellers. These accounted for 47%, 39% and 14% of the cultural tourist sample respectively. Moreover, core heritage tourism accounted for 12% of all visitors to Pennsylvania in 1997, and this group accounts for approximately 25% of total tourist expenditure. Furthermore, this study calculated the economic impact of heritage tourism alone, based on the data of core heritage travellers. This was despite the researchers stating in their report that moderate heritage travellers and low heritage travellers should both be taken into account, as travellers from these groups also consider heritage as an influence or motivating factor in travelling to Pennsylvania. Therefore, the authors acknowledged that the evaluated economic impact is an underestimate of the full impact.
McKercher and du Cros (2002) questioned the reliability of the figures that have been published concerning the cultural tourism market. They used the WTO statistics as an example, questioning whether, when the WTO says that 37% of the tourists are cultural tourists, this means that cultural tourists are those purely motivated to travel by cultural reasons, or whether they may have another primary or main reason for visiting the destination. McKercher and du Cros (2002) stressed the importance of knowing the answer to this question, as it assists tourism marketers, destination managers and policy makers in the travel industry in developing more appropriate strategies for targeting segments of the tourism market.

Moreover, McKercher and du Cros (2002) pointed out the lack of studies which considered the main trip purpose or the level of importance culture played in cultural tourists' decision-making in respect of destinations. In reality, many tourists visit cultural attractions while they are travelling, but this may not fully represent their initial travelling purposes. Such visits may be an extra experience gained while they are at the destination. In order to gain a better understanding of the cultural tourism market, and also to improve the way of analyzing cultural tourism as a tourism activity, McKercher and du Cros (2002) designed a cultural tourist typology (Figure 2.2), which distinguishes five different types of cultural tourists in two dimensions. The dimensions are 'Dimension 1 - the importance of cultural tourism in the decision to visit a destination' and 'Dimension 2 - experience sought'. McKercher (2002) believes that Dimension 1 expresses the centrality of culture to the purpose of the trip, while Dimension 2 distinguishes the tourist's level of engagement with the visited culture. In reality, various tourists have different levels of ability and willingness to engage with different cultural attractions, because ability and willingness are affected
by many factors including, for instance, cultural background, education level, age, awareness of tourism sites and time availability.

**Figure 2.2 A Cultural Tourist Typology**

In the cultural tourist typology presented in Figure 2.2, the purposeful cultural tourist has high motivation and a deep experience. The sightseeing cultural tourist also has high motivation, but only a shallow experience. The casual cultural tourist has only limited motivation and gains only a shallow experience. The incidental cultural tourist has very little or even no motivation to visit and gains only a shallow experience. The serendipitous cultural tourist also has little or no motivation, but ends up with having a deep experience. This cultural tourist typology was tested empirically using Hong Kong as a case study (McKercher and du Cros, 2002). McKercher (2002) indicates that by distinguishing the various levels of motivation to visit destinations, stakeholders can gain a deeper understanding of how important a role cultural tourism is playing in attracting tourists. Lord (1999) also believes that in the cultural tourism
market, successful promotions can increase people’s motivation to visit cultural attractions, and may even be able to attract tourists who had little interest otherwise.

2.5.3 Critiques of Typologies

As stated before, every single typology has its own purpose and none of the typologies can be used universally. As the tourism literature develops, more critiques of the foregoing typologies appear. All in all, the critiques or drawbacks of the existing tourist typologies can be summarized as follows.

Smith (1990) and Mehmetoglu (2004) observe that some influential typologies, which were designed in the early years, were created purely on the basis of theoretical assumptions or ad hoc observations, without empirical testing. This reduces the level of validity and reliability of the typologies. However, the more recently proposed typologies of Perreault et al (1979), Dalen (1989), Gallup and American Express (1989), and Decrop and Snelders, (2005) are all based on empirical studies.

Lowyck et al (1992), Sharpley (1994, 1999) and Mehmetoglu (2004) raised the issue that the majority of the designed typologies focus on the behaviour of the individual tourist, rather than considering the wider context of their behaviour, e.g. economic, social and cultural influences. Moreover, only a limited number of dimensions were built into the existing typologies, e.g. the number of tourists, age groups, occupations, etc.

Seaton (2002), Mehmetoglu (2004) and Swarbrooke and Horner (2006) also pointed out that the previously devised tourist typologies do not explain how and why an individual tourist becomes or belongs to a particular type, nor how they might change type. In other words, the tourist’s behavioural type was treated as static. In fact, if the
conditions (i.e. health, level of income, leisure time availability, family, work commitments, etc.) are changing, tourists can move from one type to another.

Some of the foregoing typologies (Cohen, 1972; Pearce, 1982) have the drawback that classified groups overlap with, or are not entirely distinct from, each other. For instance, non-institutionalized 'explorers' defined in Cohen's (1972) typology, also use professional guidebooks (i.e. the institutionalized method) to plan their itineraries. Furthermore, in Pearce's (1982) typology, jet-setters belongs to the 'pleasure first travel' cluster and also to the 'exploitative travel' group (Ryan, 1991; Sharpley, 1994; Mehmetoglu, 2004).

Additionally, Mehmetoglu (2004) and Swarbrooke and Horner (2006) believe some of the typologies are over-descriptive, and do not help marketers and researchers to gain any deeper understanding of tourist behaviour. For example, Yiannakis and Gibson (1992) used a quantitative method and defined fourteen different leisure-based roles by identifying the various motives for tourists.

Ryan (1991) and Sharpley (1999) also stress that among all of the tourist typologies, no real analyses of tourists' behaviour have been done to support or explain the reasons behind tourists being classified into four, five or more different types.

In addition, most typologies with an empirical basis use data collected in Europe or the USA. Far fewer classifications or typologies have been devised using data from developing countries. Therefore, not all of the typologies can be applied to people in all different countries, and national and cultural differences have tended to be ignored, thus reducing the typologies' validity. Furthermore, among the typologies, many of them are more than 10 or even 20 years old while, as discussed earlier, the tourism industry is changing and expanding quickly. Some of the old classifications cannot
accommodate all of the changes in tourist behaviour that have taken place in recent years.

The last, but not the least criticism is that there are still many gaps in the tourist typology literature. For example, there is very little literature on designing typologies for a sub-set of tourists (e.g. cultural tourists, religious tourists, business tourists, etc.) (Swarbrooke and Horner, 2006).

Having reviewed the weaknesses of the existing tourist typologies, the potential benefits of further development in tourist typologies are apparent. A group of researchers (Keng and Cheng, 1999; Mo et al, 1993; Sharpley, 1994; Mehmetoglu, 2004; Swarbrooke and Horner, 2006) have given the following suggestions for how to develop and improve tourist typologies in the future: (1) Both emic and etic approaches should be used for designing typologies; (2) Typologies should take group tourists into consideration; (3) Not only should theories be used, but also comparative empirical case studies or testing should be conducted. Theory and empirical evidence need to be integrated together, so as to build stronger foundations for the typologies; (4) Broader social contexts and structural approaches should be considered when researchers are collecting empirical evidence relating to tourist behaviour; (5) More dimensions and factors (e.g. age, motives, length of trip, etc.) should be built into future typologies.

Perhaps there will never be one typology that reflects all tourists’ behaviour. The foregoing criticisms are intended not to diminish the contributions of the existing tourist typologies, but to emphasize and warn researchers that it is not easy to develop a convincing typology. Although there are many difficulties in attempting to construct a universal tourist typology, researchers should still carry on with creating more
comprehensive typologies by taking the above suggestions into consideration (Mehmetoglu, 2004).

2.6 Authenticity²

Authenticity is one of the ideas most often discussed by scholars in the recent tourism literature (Boorstin, 1964; MacCannell, 1976; Redfoot, 1984; Urry, 1995; and Wang, 1999). As tourism becomes a more and more important part in people's daily life, the tourism industry is also getting more commercialized. Some tourists are lost when they face the many choices of travelling packages, because what tourists see and experience while they are travelling may not always be authentic, in other words, may not be original and real. Hence, lots of cultural tourists have started asking themselves which type of holiday can give them a real or authentic experience. This section focuses on reviewing the authenticity literature from the cultural tourism perspective.

Generally speaking, there are three different types of authenticity in the tourism literature. These are broadly defined as: objective authenticity, constructive authenticity and existential authenticity (Meethan, 2001; Wang, 1999).

> Objective Authenticity

Perhaps the most influential work on authenticity in the tourism literature is by MacCannell (1973, 1976). He discusses the links between tourists' motivation and authenticity, and he expresses the view that in Western tourism industries, the initial motivation for tourists to travel is that they have a desire for authenticity which can only be experienced outside of their daily life.

However, Redfoot (1984) and Urry (1995) say that the search for authenticity is not comprehensive enough to explain all contemporary tourism. Some tourists are

² Authenticity is an issue which arose in the context of the focus group discussion, see Chapter 5.
generally uninterested in the search for the authentic but, to a certain extent, authenticity is still closely related to cultural tourism. Visitors to a cultural attraction that is well known to be authentic are not necessarily attracted by its authenticity. They may come for the visit only because of the fame of the attraction and to gain personal status (Boniface and Fowler, 1993).

MacCannell (1973) points out that although tourists have desires for authenticity, they do not always get what they really wanted or expected. For example, they may believe that the displays they see, the events they participate in, and the places they visit are all authentic, whereas, sometimes those objects and activities are designed especially for tourists. Tourists may believe that they have entered a back region (authentic), but actually they only managed to access a front region (inauthentic). MacCannell (1973) defines the front region as 'staged authenticity'.

Constructive Authenticity

Cohen (1988), Wang (1999) and Urry (2002) say that constructivist philosophers believe that nothing in the world was born to be authentic. Rather, all the authentic meanings behind things and objects have been constructed by people who are living in, and involved in, various societies. Different societies/communities define authenticity differently, as it depends on people’s culture, beliefs, perceptions, attitudes, traditions, etc.

Moreover, Wang (1999) observed that whether things are authentic or inauthentic is a result of how one sees and interprets them. If tourism-related objects and sites have matched with or reached the tourists’ expectations and requirements, then they would be grouped into the authentic category. Although things can be inauthentic or artificial initially, they may become authentic at a later date with the passage of time. All in all,
in the constructivists' world, authenticity is not a given concept, but is socially constructed, and it is relative, negotiable and changeable, being defined differently in various periods and societies (Cohen, 1988; Wang, 1999).

Cohen (1988) questioned MacCannell's (1973) theory of 'staged authenticity' and 'commodification', arguing that the commodification of culture-related things does not necessarily always destroy the authentic aspect of the culture. Moreover, it may assist with or stimulate the emergence or development of new types of authentic culture, while preserving the authenticity of the original culture.

- **Existential Authenticity**

Wang (1999) explains that existential authenticity involves tourists' personal feelings from participating in tourism activities. Wang (1999) proposes that the experience of being engaged in non-daily or non-regular activities makes people feel that they are getting more authenticity. This type of personal authentic feeling is not caused by the type of objects they have seen, but by the fact of being free to enjoy things and activities that they are not able to enjoy in their normal daily life.

**2.7 Cultural Capital**

The issue of cultural capital and its various meanings was important in the design of the survey (see Chapter 5), and in the assessment of the impact (see Chapter 10 and Chapter 11).

WTO and ETC (2005) say that city cultural tourism is dominated by the established 'cultural capital' of the tourism destinations. However, the traditional cultural cities seem to be losing market share to new cultural destinations which have innovative cultural products and services. ATLAS data suggest that the most important reason for tourists visiting cultural attractions is to learn about history and culture, and to
enjoy the atmosphere of the cultural attraction (WTO and ETC, 2005). Therefore, to
gain a deeper understanding of the rationale behind cultural tourism, the concept of
cultural capital should be considered.

In the literature, cultural capital has been defined differently by various scholars. The
sociologist Pierre Bourdieu's definition of cultural capital is the most widely used in
sociology and cultural studies. He defines cultural capital in three different states: (1)
the embodied state, which means cultural capital is a long-lasting disposition of the
individual's mind and body; (2) the objectified state, this is when cultural capital is
treated as cultural goods or objects, such as paintings, photos, books, buildings,
machines, etc.; (3) the institutionalized state, when cultural capital is in the form of a
recognised qualification that provides value to the holder of the qualification
(Bourdieu, 1986).

Holt (1998) argues that Bourdieu's (1986) theory provides the most comprehensive
and influential understanding of cultural capital for the development of a theoretical
framework to investigate the rationale behind the tourist's cultural consumption.

The most important form in Bourdieu's (1986) definition of cultural capital is the
embodied state. He argues that the majority of cultural capital can be derived from the
conversion of physical capital into embodied capital and that physical capital
presupposes embodiment, in other words, the conversion of tangible capital into
intangible capital (Bourdieu, 1986).

Another widely adopted definition of cultural capital was provided by the economist
David Throsby, who distinguishes the concept of cultural capital into two parts:
tangible and intangible. Throsby (1999; 2002) believes heritage buildings and art
works belong to the tangible cultural capital group, since they can be defined as assets
that embody or give rise to cultural value, in addition to the economic value they might hold. In Throsby’s (2002) opinion, intangible cultural capital includes people’s beliefs, ideas, traditions, customs, etc., and it also comprises intellectual capital, such as language, aesthetics, literature, music, etc. Moreover, Zweigenhaft (1993) defined ‘cultural capital’ as the meaning of various forms of knowledge and skills, and ‘social capital’ to mean knowing the right people, networking.

2.8 A Causal Chain Model

As noted in Section 2.6, Antolovic (1999) found that approximately 67% of tourists who visit the United Kingdom are only partly seeking for cultural heritage experience, meaning that there are other reasons which caused those tourists to visit. In order to analyze all the possible ways that can cause tourists’ visits to destinations, a causal chain model is introduced. The original causal chain model was introduced by Young et al (2004) as an alternative approach to deal with causal uncertainty in the law relating to injuries. It was developed in Young et al (2006; 2007). Young et al (2004) said that the idea of the causal model is derived from Mackie’s (1980) general and practical definition of cause in the philosophy literature.

According to Young et al (2004), causality is the concept that scientists use. In the absence of uncertainty, when A happens, it causes D to happen as well. In other words, the occurrence of A leads to the occurrence of D: A⇒D. In contrast, ‘causation’ is the lawyer’s term, which means if A had not happened, then D also would not have happened (i.e. ¬A⇒¬D). However, the element of ‘necessity’ needs to be taken into consideration. For instance, if A causes D, it means event D necessarily follows from A; in other words, D follows A all the time and in every situation.

---

1 The causal chain model is related to one dimension of the theoretical model, which is developed below in Chapter 4.
However, Young et al (2004) pointed out there is a problem of causal uncertainty. For example, in the foregoing definition of causality, D always follows A. However, there are few practical situations in which D invariably follows A. Similarly, in the definition of causation, D never happens unless A has happened. In reality, this is also implausible.

Figure 2.3 represents the causal chain model applied to the outcome of a visit to a destination. It distinguishes the meanings of causality and causation and includes uncertainty in respect of both.

![Figure 2.3 A Causal Chain Model](Adapted from: Young et al, 2004:510)

Young et al (2004) noted the points A, A', B, C and D in Figure 2.3 represent various events, and the directed lines indicate the possible successions of events.

1. O is the origin of the causal chain leading to a visit to the destination.
2. A is a potential cause of a visit to the destination, such as a cultural attraction or event.
3. B is the combination of other potential reasons for visiting the destination, which must exist if there is uncertainty in the sense of causation (i.e. if D can happen without A).
4. C and A' are combinations of other events or circumstances that are necessary if the visit is to happen. A' includes such circumstances as are necessary if the cause of the visit is A. C includes circumstances that are necessary irrespective
of the cause of the visit. C and A' must exist if there is uncertainty in the sense of causality (i.e. if D does not invariably follow A).

5. D is the event of a visit to the destination.

Expressed algebraically, Figure 2.3 is equivalent to the following proposition:

\[ D \iff [(A \land A') \lor B] \land C \]

'\lor' is inclusive disjunction (i.e. or) and '\land' is conjunction (and). '\iff' is the iff symbol, which means "if and only if", so D and [(A \land A') \lor B] \land C imply each other, i.e. the visit happens if and only if [(A \land A') \lor B] \land C happens. In other words, D happens iff there is a completed path from O to D.

The following two propositions are (the only) two sufficient conditions for D.

\[ D \iff A \land A' \land C \]

\[ D \iff B \land C \]

As Young et al (2004:511) explain, "A is a necessary part of the sufficient condition A \land A' \land C but it is not sufficient for A \land A' \land C (because A' and C must also occur). So A is a necessary but not sufficient part of a sufficient condition for D." However, "the sufficient condition A \land A' \land C is not a necessary condition for D because there is the alternative sufficient condition B \land C."

Young et al (2005) first introduced the causal chain model to the theoretical literature on tourism, and then the model was brought to the empirical literature on tourism by Fernandez-Young and Young (2008). Further discussion and developments to do with the cause chain model follow in Section 4.2.
2.9 Utility Function and Meta-preferences

In this section, a particular part of the literature on preference theory is reviewed. The idea of meta-ranking or preference over preference ranking was explored in Sen (1977; 1982; 1983; 2002) and it is very important for analyzing individual rationality in a social context. According to Sen (1977), even if preferences reflected someone’s own personal likes and dislikes, then it is quite rational to have a multiple level ranking of alternatives. For example, Sen has considered the differences between following three categories: the first one is pure self-interest; the second is sympathy (for persons or situations); and the third one is commitment (to a cause or an ideology). Sen (1983) suggests that each person may have a number of significantly different preference orderings or rankings. When people make choice decisions, there will be a ranking of rankings or meta-ranking and these need not fulfil the consistency condition of rational choice.

A person with these three tracks of preference has to choose which of the three preference functions she will follow. For several reasons, she may change her chosen preference function from time to time. She may be self interested and then choose to become sympathetic. Sometimes there are things that need to be done before a change can be made from one preference function to another. In other words, there are costs of adjusting to the most preferred preference function, say P1.

For example, P1 may be such that they prefer to smoke. However, in parallel with P1 they may have another preference function P2 in which they prefer not to smoke. Even though they have preference function P1 at the moment, it may be that they would prefer to have P2 rather than P1. The person prefers to smoke, but it may be

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4 The utility function and meta-preferences are related to the other dimension of the theoretical model, which is developed in Chapter 4.
that she would prefer not to smoke. This person will want to replace her preference function P1 with her more preferred preference function P2. She will do this only once costs of adjustment have been overcome (for example, the person may need to switch from P1 to P2 slowly or with assistance).

In this study, the fundamental question addressed is how people use cultural tourism to change their preference function and why. Further detailed discussions about how preference functions and meta-preferences help with the theoretical model development is given in Sections 4.3 - 4.5. However, the basic idea is that visitors to a cultural attraction may be there because they are following their preferences or so that they are assisted in changing their preferences to a preference function higher up their order of meta-preferences.

2.10 Evaluating the Economic Impact of Tourism

Understanding the economic impact of tourism provides tools to assist decision-making (Tribe, 2005). Before discussing past studies on the economic impact of tourism, it is important to understand what the economic impact of tourism is. Stynes (1997) classified the economic impact into three categories: (1) Direct effects, which include sales, jobs, tax revenues, income levels, etc.; (2) Indirect effects, which mean changes in prices, in the quality and quantity of goods and services, in property and other taxes, and also social and environmental changes; (3) Induced effects, containing household spending and the proprietor’s increased income. Stynes (1997) defined the economic impact of tourism as the aggregated amount of direct, indirect and induced effects within a study area (e.g. city, region, state, country, etc.).

In terms of the research on evaluating the economic impact caused by the tourism industry, Frechtling (2006) pointed out that Ogilvie (1933) and Alexander (1953) are
the two pioneers. In the last 20 years, tourism economic impacts have been studied substantially. For example, pertinent studies completed in recent years focus on evaluating the economic impact caused by events or festivals at the hosting destinations (Long and Perdue, 1990; Getz, 1994; Crompton, Lee, and Shuster, 2001; Tyrrell and Johnston, 2001; Brown et al, 2002; Chhabra et al, 2003; Kasimati, 2003; Daniels et al, 2004; Dwyer et al, 2004; Jackson et al, 2005; Fernandez-Young and Young, 2008; Young et al, 2010). Relevant studies were done on estimating economic impact caused by tourism activities at specific sites or towns (Johnson and Sullivan, 1993; Frechtling and Horvath, 1999; Upneja et al, 2001; Young et al, 2010). Moreover, various studies were conducted in measuring economic impact at different scales of geographic areas, e.g. market towns, regions, states or countries (Anton et al, 2009; Taylor et al, 1993; Perez and Sampol, 2000; Vaughan et al, 2000; Lovejoy, 2003; Chhabra, 2004; Smith, 2005; Wang et al, 2004; Wilton, 2004).

Evaluations of economic impact provide information about the flow of spending caused by tourism activities, which assists with explaining and predicting changes in sales, income, tax and employment (Stynes, 1997). In addition, economic impact analysis also helps policy makers, marketers, planners, residents and investors with making effective development and investment decisions to do with tourism-related activities or construction, especially, in terms of the following aspects: (1) Helping to assess the effectiveness of marketers' investments and new public policies; (2) Stimulating government and business partners to cooperate in developing the tourism industry, to their mutual benefit; (3) Presenting the economic effectiveness of tourism development in the evaluated area and, in this, helping local residents and policy makers to understand whether further tourism developments should be encouraged for
social balance; (4) Helping with identifying changes in tourism demand (Crompton et al, 2001; Frechtling, 2006; Stynes, 1997; Wilton and Nickerson, 2006).

Table 2.4 summarises the methods which have been used in economic impact assessments, and notes some of their important features.

Table 2.4 The Appropriateness of Different Methods for Assessing

<table>
<thead>
<tr>
<th>Method</th>
<th>Past</th>
<th>Present</th>
<th>Future</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention analysis</td>
<td>•</td>
<td></td>
<td>•</td>
<td>Requires historical time series data</td>
</tr>
<tr>
<td>Causal analysis</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>Must be done at the time of an event</td>
</tr>
<tr>
<td>CGE</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>Requires detailed quantitative knowledge</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>of economic system</td>
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<tr>
<td>Conjoint analysis</td>
<td></td>
<td></td>
<td>•</td>
<td>Requires extensive survey information</td>
</tr>
</tbody>
</table>

(Adapted from: Young et al, 2008:49)

As shown in Table 2.4, Young et al (2008) summarized the methods used in the literature for assessing economic impacts of events into four groups: (1) Intervention analysis, which requires historical time series data to forecast the amount of economic activity that would have taken place in the absence of the event whose economic impact is being evaluated. The difference between observed activity and forecast activity is the economic contribution of the event; (2) Causal analysis, which needs survey collection at the time of the event or at the attraction, to gather data from which to estimate the fractional influence on causing visits contributed by the event or attraction; (3) Computable General Equilibrium (CGE) modelling, which needs comprehensive quantitative information about the sectors of the economy in order to evaluate the economic impact of the chosen event. However, Young et al (2008) observes that even with the information required for CGE, the result of the economic impact of the event rests on assumptions. This method is often adopted for evaluating the economic impact of mega-events, e.g. Olympic Games (Blake, 2005; Li et al, 2011); (4) Conjoint analysis, which is a method used for optimizing the economic
impact of events or attractions, by collecting data on people's preferences as to hypothetical events or attractions. This method is suitable for predicting and optimising the future economic impact of events and attractions.

Stynes (1997:12) observes that "Economic Impact of Tourist Spending = Number of Tourists * Average Spending per Visitor * Multiplier" and the total economic impact is equal to direct economic effects plus secondary economic effects (i.e. indirect + induced effects). According to Frechtling (1994), the total effects (direct, indirect and/or induced) divided by the direct effects of tourism is called the 'multiplier'. The rationale behind the multiplier is income recirculation, which means people who gained money from a certain activity then use part of their income for increased consumption expenditure, thereby causing further sales, income and employment. Stynes (1997) points out that multipliers represent the secondary economic effects (i.e. indirect and induced effects) of tourism activity, and also that multipliers vary quantitatively between economies.

In previous studies, the variables used for measuring the economic impact of tourism include visitor expenditure, businesses receipts and local residents' spending in the area being studied. However, primary or secondary visitor expenditure data are the main measure used in the majority of economic impact assessments. Therefore, understanding the real meaning of the consumption expenditure of visitors is crucial for evaluation of the economic impact caused by tourism (Vaughan et al, 2000; Mihalic, 2002; Wilton and Nickerson, 2006). However, the actual visitor expenditure collection process is not always straightforward (Ritchie, 1984; Mak, 2004).

Since tourist consumption expenditure is the fundamental element of tourism economic impact and it is difficult to measure it accurately, Frechtling (2006) summarized and discussed a number of methods and models used to measure visitor
expenditure in geographical areas, but excluded estimating the direct impacts of expenditure on the basis of other measurements, such as employment, income, government revenue and business profits. Moreover, the multiplier effects of visitor spending and cost of activities caused by visitor expenditure were also excluded. As reported in Frechtling (2006), the World Tourism Organization (2005) defined visitor consumption expenditure as the total consumption of or on behalf of visitors, calling this 'visitor demand', which is larger than visitors' spending on a trip, as it also includes the expenditure on goods and services on behalf of the visitors. For example, for people who travelled to places on business trips, their visitor demand includes hotel costs which were paid by their company.

Once visitor expenditure is defined, Frechtling (2006) says that, in order to evaluate the economic impact of tourism, three contexts need to be decided: occasion, venue and time frame. In respect of evaluating the economic impact caused by occasions, studies are normally related to festivals, sports events, conferences, exhibitions and so on. However, Ryan (1998) and Frechtling (2006) state that the challenge of choosing an occasion for which to estimate the touristic economic effect is that events and festivals are normally 'one-off' or infrequent, but assessing the annual economic impact usually requires an average expenditure through the whole year. Therefore, this type of economic impact evaluation is limited to the period of the event and also limited by whether the event has a count of visitor numbers. If the research method is not appropriately applied to the event, then it is very difficult to correct the mistake ex post.

Furthermore, evaluating the tourism economic impact should count only the extra amount of expenditure, injected into the studied area by visitors, which is caused by the chosen event (Baretje, 1982; Fleming and Toepper, 1990; Frechtling, 1994; Getz,
The money spent by local residents in the studied area should be excluded in computing the economic impact so as to avoid double-counting, because that expenditure would have occurred anyway (Crompton et al., 2001; Felsenstein and Fleischer, 2003; Tyrrell and Johnston, 2001). Felsenstein and Fleischer (2003) and Crompton et al. (2001) also point out that there are only relatively few studies that evaluate the economic impact by using a method which goes beyond the use of multipliers.

In contrast, Gazel and Schwer (1997) included the money spent by the local residents who attended in their assessment of the economic impact on Las Vegas of a concert. Their argument was that if the concert was not held in Las Vegas, those locals who attended the concert would have travelled to somewhere else to attend the concert. Therefore, expenditure by locals can be seen as 'retained expenditure' (Ryan, 1998). However, the method of expenditure calculation by Gazel and Schwer (1997) is contrary to the commonly agreed rule of excluding the residents' expenditures. Moreover, Tribe (2005) and Vanhove (2005) also pointed out that the expenditure of local residents other than in their area of residence is a leakage from the local economy's multiplier effect. It would be double counting if local residents' expenditure were included in the evaluation of the direct economic impact.

Many researchers (Ryan, 1998; Getz, 1994; Crompton et al., 2001; Tyrrell and Johnston, 2001) have striven for more accurate estimation of the economic impact caused by an event, by excluding casual visitors (i.e. visitors who came to the destination for other reasons, but attended the event.) and time switchers (i.e. visitors who were going to visit the researched area, but in order to attend the event, changed their time of visiting) in their studies. Because casual visitors would have come to the destination regardless of the event taking place there, their expenditure is not
attributable to the economic impact caused by the event. Defining time switchers is a less easy task. In Crompton et al (2001), visitors were asked whether they would have come to the destination within the following three months if they had not come at the time they did. The expenditure of respondents who answered in the affirmative was excluded from the economic impact. However, Frechtling (2006) argued that the question that was used to classify the time switcher in Crompton et al (2001) is based on assumption. The respondent was already at the event site and giving a money injection into the local economy. However, whether they will visit the studied destination again in the future is speculative.

According to Getz (1994) and Vanhove (2005), a tourist event does not simply bring a positive economic impact on the destination, it also it has a crowding-out effect. A regular visitor who normally goes to a destination for a holiday at a certain time of the year may change his/her plan to avoid the mass of visitors during an event period, and visit another place instead. Crompton (1999) estimated that the loss of visitor expenditure in Los Angeles due to the Olympic Games held there in 1984 was $165 million. However, Getz (1994) argued that the displacement cost or negative economic impact can only be measured through surveys with businesses and that the reliability and accessibility of the provided information are both problematic.

The various methods that can be adopted for estimating visitor spending are summarized below. According to the World Tourism Organization (2000), these are: household surveys, visitor surveys, existing data, tourism establishment surveys, central bank data, and expenditure models. Moreover, Frechtling (1994) added the ‘direct observation’ method, and expanded the category of ‘expenditure models’ by adding seasonal-difference model and a supply-side judgmental model.
Visitor surveys are the most popular and straightforward method used in studies evaluating tourism economic impact, as researchers can gain accurate samples of information about the visitors' spending, and therefore using the calculated mean of expenditure to estimate the tourism economic impact (Smith, 2000; Crompton et al, 2001; Lovejoy, 2003; Wilton and Nickerson, 2006). Stynes (1998) says that the important criteria that should be defined clearly before starting to collect reliable data for economic impact evaluation are: a study region, spending categories, a fixed unit for spending measurement (e.g. each visitor per day), and a definition of qualified non-residents. Moreover, Crompton et al (2001) also emphasized the needs of getting accurate data for each group size, as the average of the visitor expenditure may be different by party size up to three (e.g. the cost of accommodation and transport).

The timing of conducting a tourism survey can vary: data can be collected before the visitors go into an area, or when they leave the studied tourist attraction, or during their visits at the attraction/event. Surveys can take place on various types of transport while people are travelling, or even when they arrive home after their visits, for instance, on-line surveys. All in all, the method chosen for survey collection mainly depends on the main purpose of the survey and what kinds of data the researchers would like to get from the respondents (Chhabra et al, 2003; Daniels et al, 2004; Crompton et al, 2001).

Frechtling (2006) reports two interview methods that have been commonly used in collecting surveys: personal interviews and self-administered questionnaires. The personal interviews are normally taken on-site by researchers and self-administered surveys can also be done on-site through e-service devices or after their visits. However, the number of questions needs to be chosen well, otherwise the survey can
be too time consuming, and researchers would get a smaller response rate and less accurate responses.

According to Getz (1994), the most reliable method that can be used for tourism event impact data collection is the random sampling method, as it is the most appropriate technique to gather information to represent the characteristics of the studied population. Choosing the most appropriate sampling method is a crucial task for all researchers, because if the chosen method is not suitable for the study design, there is no way to remedy the weakness, even collecting a larger sample size (Fleming and Toepper, 1990). Moreover, when collecting data at ungated events or attractions, using the right sampling method to obtain data becomes even more crucial, as it assists the researchers in obtaining more accurate estimates of the economic impact caused by events (Crompton, 1999).

Furthermore, according to previous research experience, many researchers believe approaching visitors after their visits at exits, or even within 24-hours after their visits, is the best method for doing surveys, as the visitors are able to give the most accurate amount of expenditure after their visits. The longer the visitors were interviewed after their visits, the more likely the visitors would be to wrongly estimate the actual expenditure during their visits (Stynes and Mahoney, 1989; Howard et al, 1991; Frechtling, 1994; Vaughan et al, 2000; Zhou, 2000; Breen et al, 2001; Sun, 2005). Nevertheless, a difficult issue also raised by Zhou (2000) is that interviewing visitors at the end of their spending can be very expensive and not easy to approach in certain studies. If the accuracy of the expenditure data cannot be managed well, researchers should take the bias into account when it comes to interpreting the data.

When it comes to choosing a research method, Frechtling (2006) also suggested that researchers should follow the three principles of measurement validity set by the
WTO, which are relevance, coverage and accuracy. Among all the discussed methods, a visitor survey is the only method that meets all of the three principles.

However, estimating visitor expenditure is a crucial task for evaluating tourism economic impact accurately. Frechtling (2006) provided three criteria that researchers can follow to assure the collected estimated expenditures are valid and reliable. First of all, the visitors need to live permanently outside of the research area; secondly, only the money spent by visitors during their visits within the research area can be counted as visitor expenditure; finally, only spending by the qualified visitors during the study period should be used for estimating the economic impact.

Wilton and Nickerson (2006) pointed out that researchers normally report visitor expenditure as an overall amount of money, for instance, total expenditure per visitor/party per day, or total spending per visitor/per party per visit. Detailed visitor expenditure has not been discussed much in the literature. Chhabra (2003) studied detailed visitor expenditure patterns using Sacramento County as a case study, and ranked the spending categories, which are: (1) lodging; (2) shopping; (3) food; (4) beverages; (5) gasoline. This ranking of expenditure segments makes researchers able to provide even more detailed and focused economic impact evaluation for various industries.

In addition, many researchers (Miller, 1997; Silberberg, 1995; Richards, 1996b; DKS, 1999) believe cultural tourists are frequent travellers, and they normally stay longer at a destination, spend more while they are there, and participate in more activities than other types of tourist. This implies that cultural tourists have a larger potential economic impact than other tourists.
2.11 Evaluating the Cultural Impact of Tourism

Assessing the cultural impact of tourism is as important as evaluating the economic impact caused by tourism, but due to the difficulty of quantifying it only very limited empirical studies of socio-cultural impact evaluations can be found in the literature (Ritchie and Lyons, 1990; Soutar and McLeod, 1993; Mihalik, 2000; Fredline and Faulkner, 2001; Small et al, 2005; Wall and Mathieson, 2006).

Small et al (2005) argue that even if festivals and events are making positive economic impacts, the social-cultural impacts of the events should still be evaluated because, if the latter has been constantly negative, it can demolish the economic benefit to the local economy in the long run. Getz (1997) and Douglas et al (2001) suggest stakeholders should not make the cultural attractions too commercialized in order to attract more visitors, as the factors such as culture preservation and cultural influence should also be taken into consideration, otherwise the negative cultural impact can destroy the image and reputation of an attraction or a destination in the long term.

The cultural impact of tourism can be evaluated from two different angles: the local residents and tourist visitors (Small et al, 2005). As for the local residents aspects, researchers hold two different attitudes based on the contrasting results from their studies. Pizam (1978) and Brougham and Butler (1981) believe the closer the locals live to or get involved in the tourist activities, the more negative the perception they would have regarding the cultural impact of tourism. In contrast, several research studies (Rothman, 1978; Belisle and Hoy 1980; Sheldon and Var, 1984; Keogh, 1990) found totally opposite results to the earlier ones. Those converse results from the previous studies indicate that whether the locals' perception of cultural tourism
impact is negative or positive may also link to the type of tourist activities they get involved in, and also the community itself (Small et al, 2005).

In recent years, researchers started finding methods to measure socio-cultural impact. Small et al (2005) designed a Social Impact Evaluation (SIE) framework (Figure 2.4) for evaluating socio-cultural impacts caused by festivals or events. This six-stage framework was designed by integrating the foregoing socio-cultural impact assessment models together (Finsterbusch et al, 1983; Wildman and Baker, 1985; Burdge, 1999; Barrow, 2000; Thomas, 2001) including description, profiling, identification, projection, evaluation and feedback.

**Figure 2.4 Social Impact Evaluation Framework**

![Social Impact Evaluation Framework](image)

(Adapted from: Small et al, 2005:69)

For the purpose of setting a standardized measurement of residents' perceptions about tourism impact, researchers have developed various tourism impact attitude scales, for instance, a 27-item tourism impact attitude scale (Lankford and Howard, 1994); a 35-item tourism impact scale (Ap and Crompton, 1998); and a 36-item event impact scale (Fredline and Faulkner, 2000). In addition, Small et al (2005) also developed a social impact perception scale (see Figure 2.5), to assist with evaluating festivals and events,
based on the scale and instrument developed by other researchers (Green et al, 1990; Delamere et al, 2001; Fredline et al, 2003).

Table 2.5 Social Impact Perception Scale (SIP)

<table>
<thead>
<tr>
<th>Impact Statement</th>
<th>Impact</th>
<th>Level of Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>The footpaths and streets were crowded during the festival</td>
<td>Y N DON'T KNOW</td>
<td>-5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5</td>
</tr>
</tbody>
</table>

(Adapted from: Small et al, 2005:71)

To compare with the previous tourism perception scales, using Small et al's (2005) SIP can gather more information for researchers and stakeholders for future planning, since it asks respondents to always provide answers for the level of impact in respect of each statement, regardless of whether the respondents perceived an impact or not. For the pilot study, a list of socio-cultural impact related items was identified and classified into five categories (see Table 2.6). Small et al (2005) advises researchers to think wisely about designing the statements for surveys, and always to ask respondents in a way which helps the researchers to gather the information they need (Small et al, 2005).
Table 2.6 Identified Items for the SIP Scale

<table>
<thead>
<tr>
<th>1. Community impacts</th>
<th>2. Leisure/recreation impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crowded footpaths and streets</td>
<td>Increased entertainment opportunities</td>
</tr>
<tr>
<td>Difficulty finding car parking</td>
<td>Increased future use of existing recreational and leisure facilities</td>
</tr>
<tr>
<td>Traffic congestion</td>
<td>3. Infrastructure impacts</td>
</tr>
<tr>
<td>Crowding in local shops and facilities</td>
<td>Restoration of existing public buildings</td>
</tr>
<tr>
<td>Public transport services congested</td>
<td>Public facilities will be maintained at a high standard</td>
</tr>
<tr>
<td>Noise pollution</td>
<td>4. Health and safety impacts</td>
</tr>
<tr>
<td>Increased range of goods and services</td>
<td>Increased police presence</td>
</tr>
<tr>
<td>Increased price of goods and services</td>
<td>Increased crime and vandalism</td>
</tr>
<tr>
<td>Increased job opportunities</td>
<td>5. Cultural impacts</td>
</tr>
<tr>
<td>Increased business opportunities</td>
<td>Impacts on local character of the community</td>
</tr>
<tr>
<td>Increased local pride</td>
<td>Impacts on the region's cultural identity</td>
</tr>
<tr>
<td></td>
<td>Increased local interest in the region's culture and history</td>
</tr>
<tr>
<td></td>
<td>Increased local awareness of the cultural activities available</td>
</tr>
<tr>
<td></td>
<td>Interaction with visitors offers an educational experience</td>
</tr>
</tbody>
</table>

(Adapted from: Small et al, 2005:73)

The identified items in Table 2.6 and the SIP scale were successfully piloted in Small and Edwards’s (2003) study of evaluating the socio-cultural impacts caused by the Australian Festival of the Book. The cultural impact was regarded as a part of the socio-cultural impact. As indicated in Table 2.6, socio-cultural impact evaluation includes five aspects: community impacts, leisure/recreation impacts, infrastructure impacts, health and safety impacts and cultural impacts (Small and Edwards, 2003; Small et al, 2005).

Matarasso’s (1997) study assessed approximately 90 projects in the UK, New York, and Helsinki from 1995 to 1997 by using a range of data collection methods, including participant observation, interviews and discussion groups. The evaluation of the social impacts of participation in the arts was divided into six different themes: personal development, social cohesion, community empowerment and self-
determination, local image including imagination and vision, and health and well-being. Matarasso (1997:VIII) also suggests 50 valuable benefits that people can gain from participating in the arts, for example, ‘increase people’s confidence and sense of self-worth’; ‘extend involvement in social activity’; ‘give people influence over how they are seen by others’; ‘stimulate interest and confidence in the arts’; ‘be a means of gaining insight into political and social ideas’; ‘develop pride in local traditions and cultures’; ‘help people feel a sense of belonging and involvement’; ‘provide a unique and deep source of enjoyment’, etc. In 1998, Matarasso used a similar method and completed a study of the social benefits of public library community initiatives, based on the methods of interviewing library staff, voluntary workers, personal visits to 10 projects and self-completion questionnaires issued to staff and project participants (Matarasso, 1998).

Annabel Jackson Associates (2000) conducted a study of the social impact of the Millennium Commission's Millennium Awards programme, by interviewing approximate 700 award recipients, covering nearly 700 projects. The impact results were reported from two perspectives: personal impact (e.g. developing confidence, motivation, teamwork, etc) and community impact (e.g. improving the quality of life, enhancing relationships within the community, reducing isolation, etc.). 90% of award recipients believed their project had successfully influenced people on the personal side, and 86% from the community perspective. Interestingly, 54% of the respondents indicated that without the projects, the personal social impact would not have happened (cited in Wavell et al, 2002).

However, there are issues related to assessing social impact; researchers should focus more on combining qualitative and quantitative methods together to provide reliable and convincing results, rather than only indicating the potential range of social
impacts. Researchers need to do further investigation to establish a way that the social impact can be evaluated, described and presented easily for comparison and identifying evidence (Wavell et al., 2002). In addition, Matarasso (1999) pointed out more explorations needed to be done on understanding the value of culture and methods that can be used to measure and contrast cultural vitality in different areas.

2.12 Summary

This chapter has provided an overview of the literature that is related to this research study. It has criticized the state of the (cultural) tourist typologies, and the methods that have been used in previous studies for evaluating the economic and cultural impacts of (cultural) tourism. All of the above helps to place the research issues of this study in the context of the current tourism research perspective. As discussed in Section 2.5, there is a considerable debate with respect to tourist typologies and their practical application. The reason that it is important to acknowledge this is that a well-designed tourist typology helps the government and tourism industry to make crucial decisions on investment, product development, promotion, pricing, etc., and possibly assists them with forecasting future trends (Swarbrooke and Horner, 1999). A literature review on how the two important types of consequences of tourism (i.e. economic impact and cultural impact) were evaluated in the past is also provided. Due to the difficulty of quantifying cultural impact, a relatively small number of empirical studies of socio-cultural impact were found in the literature. This raised the issue that further studies are needed not only on investigating the economic impact of tourism, but also the cultural impact of tourism.

Furthermore, as indicated in Section 2.1, since this study involves creating new combinations of ideas from different disciplines which bring the apparently unrelated parts together, the review also includes literature on topics (e.g. the tourist industry,
cultural tourism, preference function, authenticity, causal chain model, etc.) that help set a context and create links for this research.
Chapter 3 Methodology and Method

3.1 Introduction

This chapter explains the methodology employed in this study (i.e. research philosophy, methodological triangulation), and outlines the specific research methods used (i.e. multiple research methods: qualitative and quantitative, focus groups and surveys). Moreover, a structured flow chart of the whole research design for this study is given and discussed.

As outlined in Chapter 1, this thesis will apply economic and cultural tourism theories and try to investigate the following research objectives, which are:

1. To develop a better understanding of cultural tourism by economic modelling of the causes and consequences of cultural tourism;
2. To develop a method of measuring and combining the economic and cultural impacts caused by cultural attractions;
3. To apply the method to two cultural attractions: Nottingham Contemporary and the Galleries of Justice.

‘How can the economic and cultural impacts of cultural tourist attractions be measured in a consistent way?’ is the key question. To achieve the preceding objectives, both qualitative and quantitative research methods are adopted in the research process.

As indicated in Chapter 2, cultural tourism is distinguished from other types of tourism. Therefore, the distinctions between cultural tourists and other types of tourists, and between various types of cultural tourists, need to be understood. The aim of this research is to investigate the causes and the consequences of these distinctions from an economic perspective. The conception of a hypothetical rational
person is the essence of the economic perspective, and the hypothetical person is used as a device for reasoning, and a guide to the behaviour of actual persons in aggregate. In economic theory, we assume all rational people act on the basis of reasoned decisions, which means that they choose what to do with reference to its consequences. Furthermore, each individual has his/her own preference function, so a rational person always chooses to conduct himself/herself with the intention of reaching the outcome he/she most prefers, to maximize his/her utility.

Take the economist's hypothetical rational person in the example of choosing a holiday destination. As we all know, each individual comes from some kind of socio-economic background, and we might suggest that this determines (or at least affects) people's choices of destination. In the case of an economist, this is admitted, but only in a certain way, because the rational person considers alternative destinations, and they think about what kind of holiday each of them will provide and the costs, and then ranks each possible destination according to his/her preferences. Each individual's socio-economic background enters into this choosing process as an influential factor on his/her preferences. Person A may prefer sun and sand while Person B prefers museums and concerts. Their preferences may also have been formed by, among other things, their respective backgrounds. A tourist's background does not determine directly his/her choice of destination, but it may enter into the decision-making process whereby he/she chooses a destination, by way of having influenced his/her preferences.

Therefore, this research explores the contribution that the economic approach can make by contributing a perspective on the reason why cultural tourism is to be distinguished from the other types of tourism, and the way in which cultural tourism is usefully sub-divided into different categories. In respect of the latter issue, the
taxonomy that we shall be developing in Chapter 4 is related to that which was proposed by McKercher and du Cros (2002), but the new cultural tourist taxonomy is deduced from economic theories. The economic fundamental theories (i.e. preference function and the causal chain model) give some very supportive rationale to the newly developed cultural tourist taxonomy. Moreover, empirical studies will also take place to test whether all the theoretical types of cultural tourists exist, and the percentage of each type of cultural tourists at various cultural attractions (i.e. two cultural attractions will be chosen).

McKercher and du Cros' (2002) classification rests on two questions. The first of these is the effect on the tourist of the cultural tourism experience. The McKercher and du Cros (2002) typology distinguishes between deep experiences, which have a profound effect on the tourist, and shallow experiences, which do not. Referring back to the economists' theory of preferences, McKercher and du Cros' (2002) distinctions can be reinterpreted in terms of whether the tourist's experience satisfies his or her preferences (a shallow experience) or changes them (a deep experience). The second question that the McKercher and du Cros (2002) typology rests on is about how the visit to the cultural attraction took place: whether the tourist makes the visit to the destination for the exclusive purpose of going to the cultural attraction, or whether he/she comes to the destination for some unrelated reason and only then decides to go to the cultural attraction.

In this study, we will reinterpret these two questions by asking whether the tourist went to the destination because of the cultural attraction or whether he/she would have made the visit to the destination even if the cultural attraction had not been there. As indicated in Chapter 2, this interpretation leads us into considering the causal chain...
that led to the destination visit.

3.2 The Research Philosophy/The Philosophical Context

The research philosophy is a belief of the way that data should be collected, analysed and used to understand a phenomenon in society.

Positivism, interpretivism and realism are the three views about the research process that dominate the research literature (Saunders et al, 2003). The theories of positivism and interpretivism are the two major research philosophies often used to explain a human's behaviour in a society (Galliers, 1991). In this study qualitative and quantitative research methods following a positivistic mind set were chosen to explore the research objectives.

Positivism has a long and rich history in research (Hirschheim, 1985), in the positivist world, researchers are completely independent as they do not affect, and are not affected by, the subject of the research (Remenyi et al, 1998). Positivists believe that reality is stable, which can be observed, analysed and described from an objective point of view through empirical investigation (Levin, 1988; Guba and Lincoln, 1994; Cohen et al, 2004). According to Landry and Banville (1992), the fundamental requirements of positivism research are the following: use of controlled observations and controlled deductions; striving for replicability; with a desire for generalizability.

However, the positivism approach is sometimes criticised for being too rigid and abstract in its understanding of reality (Hughes and Sharrock, 1997). Since it seeks to explain the situation based on what has been observed, some variables of reality may not be measured under the positivist paradigm (Hirschheim, 1985).
The interpretivism approach aims to explore and describe in-depth phenomena through subjective interpretation. This helps researchers understand the subjective reality of the studied area, avoid over-generalisation and to understand research participants’ motives, behaviours and intentions (Saunders et al, 2003). However, the results/findings collected through an interpretivistic approach are sometimes too specific, only limited to each case, and not broadly applicable.

The research philosophy guides the selection of research methods. Positivist researchers are interested in finding regularity and gaining broad understandings, so they prefer to reduce phenomenon to the simplest elements, formulate hypotheses and test or measure them by taking large samples (Easterby-Smith et al, 1991; Hughes and Sharrock, 1997). Within the positivism approach, quantitative research methods (with large samples) are more often employed, since it allows researchers to test and measure the focused research components (Gill and Johnson, 1997).

Interpretivist researchers employ ‘think description’ to explore and describe in-depth phenomena. Interpretivists focus on eliciting detailed and sophisticated theoretical insights of the social world and then generating research findings. Therefore, various qualitative research methods are often adopted to gather meaningful insights through investigating a small number of samples in depth (Geertz, 1973; Easterby-Smith et al, 1991; Hughes and Sharrock, 1997).

However, Lin (1998) stated that in fact, the qualitative research method can be adopted to serve both positivists and interpretivists’ research purposes. Through a qualitative research method, positivist researchers are able to identify details of propositions (i.e. taking related information from thick description about hypotheses and variables), which can be then tested rigorously in other cases and surveys, but
interpretivists aim to combine the collected details into systems of belief whose manifestations are specific to a case (Lin, 1998).

Overall, positivism seems to be the most appropriate research approach for this study. The researcher aims to investigate the causal relationships of cultural tourism and measure the economic and cultural impacts of cultural tourism. Both qualitative and quantitative research methods (i.e. focus groups and surveys) are adopted and integrated to accomplish the research process, and guarantee the validity and reliability of the data collection, and the practicality of the developed theoretical model (see Chapter 4). However, they are both following the positivistic mind set, as the information collected during focus group interviews are used as preparations for the survey collection (see Chapter 5).

3.3 Justification: Multiple Methods

For each research project, the ‘best-fit’ method should be chosen according to its unique objectives. This section provides detailed justifications of why qualitative (i.e. focus groups) and quantitative research methods (i.e. surveys) were selected to assist with achieving the research objectives in this study.

The ‘inductive approach’ and the ‘deductive approach’ are the two main research purposes. The inductive approach focuses on building theory and finding the reasons behind different behaviours and attitudes by using a collection of qualitative data. This approach helps researchers to gain deep understanding of the phenomenon that they are investigating and permit researchers to develop links of the causes between different factors (Collis and Hussey, 2003; Saunders et al, 2003). The deductive approach is the one that is opposite to the inductive approach, which is a popular method normally used for testing theories, models and hypotheses. It works from the
more general to the more specific, and it is also called a 'top-down' approach (Saunders et al, 2003).

The qualitative research method can play the 'inductive' role since it is the most powerful tool that helps researchers to gather explanatory data that generates new theories, describes people's feelings, thoughts and needs, and assists with gaining in-depth understanding through interviewing and observation (Sieber, 1973; Deshpande, 1983; Carson et al, 2001; Denzin and Lincoln, 2000; Bryman, 2004). In contrast, the quantitative research method can play the 'deductive' role and collects data that can be presented statistically through highly structured questionnaires. This is a very efficient tool to test theories, models, hypotheses and show significance (Sieber, 1973; Deshpande, 1983).

Thus, Silverman (2004) and Deshpande (1983) believe quantitative research is superior to qualitative research for its objective reality and the possibility of formally testing propositions. In contrast to quantitative approaches, they believe qualitative methodologies are too subjective and impressionistic due to its nature. Bryman (1988) presents the qualitative method as more fluid and flexible than the quantitative method, since it emphasises the discovered information and the possibility of altering research plans in response to contextual occurrences. Rubin and Irene (1995) emphasize that qualitative research methods are not only an academic tool, but also a practical tool. They allow us to share the world of others to find out what is going on, why people do what they do and how they understand their worlds, and with such knowledge a variety of problems can be solved.

Based on the previous researchers' (Halfpenny, 1979; Bryman, 1988; Hammersley, 1992; etc.) explorations, Bryman (2004) created a table (see Table 3.1), which
summarizes some common contrasts between quantitative and qualitative research methods.

Table 3.1 Some Common Contrasts between Quantitative and Qualitative Research Methods

<table>
<thead>
<tr>
<th>Quantitative</th>
<th>Qualitative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Numbers</td>
<td>Words</td>
</tr>
<tr>
<td>Point of view of researcher</td>
<td>Point of view of participants</td>
</tr>
<tr>
<td>Researcher distant</td>
<td>Researcher close</td>
</tr>
<tr>
<td>Theory testing</td>
<td>Theory emergent</td>
</tr>
<tr>
<td>Static</td>
<td>Process</td>
</tr>
<tr>
<td>Structured</td>
<td>Unstructured</td>
</tr>
<tr>
<td>Generalization</td>
<td>Contextual understanding</td>
</tr>
<tr>
<td>Hard, reliable data</td>
<td>Rich, deep data</td>
</tr>
<tr>
<td>Macro</td>
<td>Micro</td>
</tr>
<tr>
<td>Behaviour</td>
<td>Meaning</td>
</tr>
<tr>
<td>Artificial settings</td>
<td>Natural settings</td>
</tr>
</tbody>
</table>

(Adapted from: Bryman, 2004:287)

All in all, both approaches can provide valuable data for this study, as the differences between the two research methods can serve various research purposes; neither of the methods should be thought as being better than the other. In terms of choosing the right approach, it really depends where the research objective lies. For all the above reasons, and also to guarantee the validity and reliability of data collection for investigating the research objectives, this study applies both research methods.

In order to achieve the first two research objectives - to develop a better understanding of cultural tourism and a method of measuring and combining the economic and cultural impacts of cultural attractions - cultural tourism, cultural tourists' preferences, choices, decision-makings, motivations, behaviours and attitudes are the fundamental research interests of this study, so a qualitative method (i.e. focus groups) is adopted to generate theories, test the primary cultural tourist
taxonomy and gather ideas for the survey design. The quantitative research (i.e. questionnaire-based survey collection) is used to test the applicability of using the cultural tourist taxonomy to measure the economic and cultural impacts at two cultural attractions.

3.4 Research Design

In this section, the proposed research design of this project is given and explained in detail.
Figure 3.1 illustrates the whole research design for this study. It starts with an initial research interest that the researcher would like to investigate: ‘What are the causes and the consequences of cultural tourism?’ and ‘How can the economic and cultural
impacts of cultural tourist attractions be measured in a consistent way?’ However, in order to answer the preceding questions, the following questions need to be answered: ‘How can we model the causes and measure the consequences of cultural tourism by using the reasoning device of a hypothetical rational person?’, ‘How can such a model be verified and quantified at a particular attraction?’ and ‘On the basis of quantification, how can economic and cultural impacts be assessed?’.

Then, after a comprehensive literature review, the theoretical model of this study was developed. The purpose of theoretical modelling is starting from an economic first principal, to develop a theoretical explanation of cultural tourism and cultural tourist taxonomy, in other words, to explain why a hypothetical rational person would participate in cultural tourism and to categorize participation.

Two focus groups took place after the theoretical model had been designed. The first reason was to discover whether people have any awareness of the fundamental distinctions in the developed theoretical model (the cultural tourist taxonomy) and to generate ideas for enhancing the primary taxonomy if needed. The second purpose was to learn the language that people use in reference to these distinctions, which helps with asking questions in a more accurate and appropriate way during the survey collection. After the focus groups, the researcher started working on the questionnaire design and pilot study. Once the different versions of the questionnaires had all been finalized, the survey collection took place at two selected cultural attractions. There are three purposes for doing a survey in this study: first, to test the theoretical model; secondly, to quantify the model; and thirdly to measure the economic and cultural impacts of each cultural attraction. When the survey collection was completed, the researcher started analyzing the data, and then gave feedback to the developed theoretical model. After the data analysis, the quantified model (taxonomy) was
constructed and finalized, then the findings of the results were written up. Finally, the implications and conclusions were formulated.

3.5 Data Collection Stage One: Focus Groups

This section provides the rationale of choosing focus groups as a method for the stage one data collection in greater detail.

The focus group is a qualitative research technique, which means a group of people (6-8 participants) having 1-2 hours of discussion on a particular topic, and expressing their opinions in an interactive manner, led by a well-trained moderator (Greenbaum, 2000). The focus group is a widely accepted and well-established qualitative research technique which has been used in all research fields over the past 20 years (Krueger and Casey, 2000). Denzin and Lincoln (2000) indicate that when a research project is in the early theory developing stage or when the researcher is in an exploratory research phase (i.e. the related topic area is not fully and comprehensively known), qualitative methods can be adopted to refine the research issues and also to reduce uncertainty about the research topic.

In the 1950s, market researchers had already started using focus groups as a research tool to find out how to make their products more attractive, and to discover more about their customers’ preferences (Krueger and Casey, 2000). One advantage of using focus groups derives from the group interaction, which helps to gather related information of a certain interested situation, therefore gaining a deeper understanding of that topic. It generally works best for topics related to people’s thoughts, desires and beliefs (Morgan, 1990; Carson et al, 2001). Moreover, it provides researchers with the opportunity to allow participants to discuss the raised questions withholding their own views. However, in the process of group discussion, participants may
change and modify their views by hearing the others’ voices. Therefore, focus groups can not only help researchers to understand why people do or feel things in that way, but also help the researchers to gather a wider range of opinions in relation to the discussed issue. This benefit cannot be gained by researchers through a normal one-to-one interview, as the interviewees only give their views at that particular moment in time (Bryman, 2004; Wilkinson, 1998). Focus groups can be used as a preliminary step in the design of surveys for further research, since it can help researchers to gain deeper understanding of individual items in the questionnaires (Morgan, 1997). To compare with the other qualitative techniques, focus groups provide unique sets of data that not only enable researchers to gain various opinions at a very detailed level, but also provide more concentrated and well-targeted data over a short period (McDonagh-Philp and Bruseberg, 2001). Focus groups are more efficient than interviews as they avoid overlap and repetition (Morgan, 1997).

For the above reasons, the focus group method is adopted to gain a better understanding of cultural tourists, to test issues relevant to and generate ideas for the development of the questionnaire, whose major aim is to assess the reliability and rationality of the constructed theoretical model (i.e. the new cultural tourist taxonomy is developed in Chapter 4). In parallel, it elicits whether cultural tourism can change tourists’ preferences, in other words, whether tourists use visiting cultural attractions as a way to form their preferences.

The process of focus group agenda’s development is dynamic, and the second focus group’s agenda is modified and improved according to the experience and the knowledge gained at the first focus group.
3.6 Data Collection Stage Two: Survey

After the focus groups, further investigation of the implications of the results will be made during the questionnaire development phase.

Combining focus groups with quantitative techniques is an extremely useful way of dealing with some research issues, as the insights gained from focus groups discussions can be used for developing well-focused questionnaires to be collected among a random sample of the relevant population. Questionnaires also have a lot of advantages, as they can be used to show causality and they are relatively cheaper and quick compared with other research methods. They can also be used to gather quantitative data for further statistical evidence. All respondents receive an identical set of closed questions, and standardized responses assist in interpreting results from a large number of respondents. Since they are anonymous, tourists keen to remain unidentified are also more likely to participate in the survey activities (Cameron, 2005). If the researcher can be present while the participants are responding to the questions, it reduces the chances of misinterpretation and the participants becoming confused (Madrigal, 1995).

The biggest advantage of using questionnaires is because of their scale development feature. Scale development means designing questions to measure the subjective properties of an object and scaled-response questions are designed to measure these constructs (Burns and Bush, 2000). In the questionnaire design for this study, the Likert scale is adopted. With Likert-scaling, individuals are presented with a number of statements which appear to relate to a common theme; they then indicate their degree of agreement or disagreement on a five-point range (Bryman and Cramer, 1999), for instance, ‘strongly agree’, ‘somewhat agree’, ‘neutral’, ‘somewhat
disagree’, and ‘strongly agree’. This scaling is often used in collecting attitudinal data in quantitative research (Bryman, 2004).

For the quantitative research on cultural tourism, the attraction-based approach is useful, since it allows researchers to identify, quantify and interview visitors at cultural attractions (Richards, 1996a). In this project, the surveys have been collected through an interviewer-administrated questionnaire method by stopping cultural tourists with a random sampling strategy at the two chosen cultural attractions.

3.7 Methodological Triangulation

Both qualitative and quantitative research methods are employed for this research project, including conducting two in-depth focus groups followed by two survey collections at two different cultural attractions.

The methodological triangulation theory was originally conceptualized by Webb et al (1966), and it is defined as multiple data collection methods used to investigate the same phenomenon, for example, using qualitative data to corroborate quantitative research findings or vice versa. It is a process of using two, or more than two, research methods to confirm measurement, therefore increasing the validity and reliability of the findings (Berg, 2001; Decrop, 1999; Leedy, 1993). Multiple research methods should be adopted when an individual research method does not provide all of the information or data needed. By using multiple methods, the missing information can be acquired. In other words, triangulation is a good tool for filling the gaps in data collection (Bryman, 2004), and this method creates opportunities for researchers to broaden, refine and strengthen the findings and ideas from the researchers’ perspective (Goetz and LeCompte, 1984).
In this research, the qualitative research method was used to facilitate the quantitative research. Bryman (2004) suggested two ways that qualitative research methods can be used to guide the quantitative research methods, namely providing the hypotheses and aiding measurement. This research has benefited from both. The results collected from the focus groups not only confirmed and clarified the theoretical model (taxonomy), but also added extra ideas into the questionnaire design (e.g. authenticity aspect).

3.8 Limitations of the Approach

The chosen research methods also have their own limitations and weaknesses. The researchers' personality, experiences, interests, cultural, skills and biases may influence the discussion of the focus group (Rubin and Irene, 1995). Usually, the questionnaire must be kept short, as most respondents only have a few minutes to answer it. The majority of the cultural tourists are there for travelling purposes, not for helping with academic research. In that case, only a limited amount of data can be achieved through the questionnaires. Sometimes, the respondents may lie about sensitive questions, and they may want to show only what is socially desirable; different people have various understanding and interpretations about the same word in the same sentence. The data analysis can be time-consuming for open-ended questions. Bryman (2004) also indicated that if respondents have problems with reading or understanding the question, or when respondents are tired or bored with the questions, this also affects the reliability and validity of the data.

All of the limitations have been taken into consideration, when the researcher was hosting the focus groups and collecting the survey. Some of the limitations have been avoided, because of the extra effort that the researcher put into the preparation and research process. For example, using an appropriate statement type of questions;
asking a reasonable number of questions; trying to keep the questions interesting and avoiding sensitive questions. The details of designing and conducting the survey are provided in Chapter 5.

3.9 Summary

This chapter has discussed the methodology and methods which will be utilised in this research. The early sections of this chapter provide the research philosophy and the justification of using multiple methods. The framework of the research design is discussed in detail, before the data collection methods for both stages is outlined. Finally, the advantages of methodological triangulation and the limitations of using these methods are given.
Chapter 4 A Theoretical Model

4.1 Introduction

The McKercher and du Cros (2002) typology defines and classifies cultural tourists. For convenience, this will be referred to as the typology. There are two dimensions to this typology. The first is causal: an account of how the tourists’ visits to the cultural attraction come about. The second is a mental element: the effect of the visit on the tourists’ mind. In this chapter, a cultural tourism taxonomy will be constructed underpinning the typology and examining some of the implications of this for the economic value of cultural tourism.

An analysis of the causal chain leading to a tourist visit was introduced into the literature by Young et al. (2005), adapting an earlier model of the causal chain (Young et al., 2004) which encompasses uncertainty in the chain leading from stimulus to outcome. In this section, the causal chain model is applied to cultural tourist visits to destinations, which means it underpins the causal dimension of the typology. This assists in explaining the contribution the attraction makes to the visit to the destination.

Calling on seminal contributions by Sen (1977; 1982; 1983) in the literature on meta-preferences, Young et al. (2008) distinguish between participation in a cultural activity for the satisfaction of established preferences, and participation for the satisfaction of meta-preferences, i.e. expanding the preference function by learning to like a new cultural activity. By applying this to cultural tourism, an economics-based theoretical model will be derived for the typology’s distinction between deep and shallow cultural tourist experiences: a shallow experience satisfies preferences, a deep one satisfies meta-preferences.
The causal chain model has implications for the relative effectiveness of alternative stimuli to cultural tourism. The preference analysis has implications on the economic consequences of cultural tourism for the tourist: an experience which expands the visitor's preferences has a long term investment value.

In the first place, the causal chain model and meta-preference model support the typology and elaborate on it. However, in doing this it also suggests the existence of an additional type of cultural tourist not distinguished in the typology.

4.2 Causal Chain Model

4.2.1 The Rationale behind the Causal Chain Model

As has been stated in Chapter 2, although the causal chain model initially was introduced in Young et al's (2004) law and economics paper, in this research the purpose of adapting the causal chain is to use this model to explain how a person comes to be in a tourism destination.

In Fernandez-Young and Young's (2008) study of the impact of films and television on tourists' visits, the results found the majority of the tourists who visited cultural attractions were only partially influenced by films or TV programmes; in other words, there are also other reasons causing tourists to visit the destinations. Only a small proportion of tourists were visiting the destinations solely based on the effect of television and films. Therefore, Young et al (2010) stated that most of the time, a cause to visit is not the only reason for the visit. So when a tourist's visit to a destination is only partly due to an attraction, the economic impact caused by that attraction to the destination should be calculated as a fraction of his/her total expenditure in the destination. Young et al (2010) indicated the connection between the cultural attraction and the actual visit involves two different uncertainties. One of
the uncertainties is in causality, which means even if a person is aware of the cultural attraction or event, whether this individual will make the visit is uncertain. The other type of uncertainty is in causation, which means the individual may still make a visit to the destination even without being aware of the cultural attraction before arriving at the destination.

Therefore, the economic impact caused to the destination’s economy by visiting a cultural attraction or an event is not always the total spend made by the tourist while he/she is at the destination, and needs to be calculated fractionally. Whether the amount of spend caused by an attraction should be credited to the economic impact depends on the initial causes of visiting the destination. In other words, what kind of role the cultural attraction played in the tourist decision-making process of visiting the destination influences the calculation of economic impact caused by the destination.

The general model of a causal chain introduced by Young et al (2004) is as follows:

![Figure 4.1 A Causal Chain Model](Adapted from: Young et al, 2004:510)

This causal chain model has been adapted for the purpose of this study. At point A there is the existence of the attraction. The possible outcome D is a visit to the destination, so the model becomes Figure 4.2.

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5 See Figure 2.3 in Chapter 2 for the detailed explanation.
The points O, A, A', B, C and V in Figure 4.2 represent various events or circumstances, and the directed lines indicate the possible progression between events. The meanings of all of the points in the causal chain are as follows:

1. O is the origin of the causal chain leading to a visit to the destination (in other words, the starting point in the explanation of how the visit came about).

2. A means the cultural tourist attraction exists in the chosen destination.

3. A' consists all of those events and circumstances necessary for the visitors to visit the destination, because of the existence of A, such as
   - The attraction is known by the visitor;
   - The visitor finds the attraction attractive;
   - The attraction is accessible to the visitor (i.e. time, budget, personal ability, etc.).

4. B means another reason(s) caused the visit to the destination.

5. C represents necessary conditions for a visit to the destination, irrespective of the existence of the attraction.

6. V indicates a happened visit to the cultural tourism destination and the cultural attraction.

Points A', B and C are implicit events or circumstances. What they represent can differ from tourist to tourist, but we know that some events or circumstances like
these must exist because of the two types of causal uncertainty. B must exist because it is possible for V to happen without A (a tourist might visit the destination even if the attraction was not there). Because a potential tourist might not visit the destination even though there is the attraction, there must be A' and C.

As can be seen from Figure 4.2, from the origin O, there are two direct single paths that can reach V. However, both paths may also happen at the same time. Therefore, in total, there are three ways that can make the actual visits to the destination happen. In the following section, each of them has been illustrated using a specific causal chain model. A green arrow means the previous point can lead to the following point successfully. A red dashed arrow means the connections between the points do not exist.

The three paths to a visit are as follows.

Figure 4.3 An Adapted Causal Chain Model: Path One

1. Path One: O $\rightarrow$ A $\rightarrow$ A' $\rightarrow$ C $\rightarrow$ V

As the above causal chain illustrates, tourists who visit the destination only to visit the cultural attraction have only gone through Path One. Without A, the path would be broken and V would not happen. In this case, all of the spending related to this visit can be contributed to the economic impact caused by this cultural attraction.

2. Path Two: O $\rightarrow$ B $\rightarrow$ C $\rightarrow$ V
The above causal chain illustrates the type of visitors whose visit to the destination was purely stimulated by reasons other than the attraction (e.g. business, visiting relatives, etc.), irrespective of whether they visited the attraction once they were at the destination. If the cultural attraction were not there, they would still visit the destination. The visitor's contribution to the economic impact caused by the cultural attraction to the destination is zero, because the economic activity of this visitor would have been there even without the attraction.

3. Path Three: $O \rightarrow A \rightarrow A' \rightarrow C \rightarrow V$ (the upper route) and $O \rightarrow B \rightarrow C \rightarrow V$ (the lower route) happen at the same time.

For visitors who visited the destination through Path Three in the causal chain, they came to the destination not only because of visiting the cultural attraction, but also for other reasons. In other words, both A and B have played their own roles to a certain extent in terms of bringing visitors to the destination. Nevertheless, the cultural attraction played a part in the role of attracting visitors to the destination.
In terms of bringing an economic contribution to the destination, the extent of the role cultural attraction plays in her/his decision-making process is different from case to case; therefore, it needs to be assessed for each individual. One of the reasons for using questionnaire-based surveys as one of data collection methods is because it helps the researcher to quantify the proportions of the economic impacts partially caused by the cultural attraction.

The next subsection explains the principles of calculation and measurement corresponding to the causal chain model.

4.2.2 Causal Chain Model: Principles of Calculation and Measurement

The importance of A in the causal chain differs from one tourist to another. Even for the tourists who have gone through Path 3, the level of influence caused by the cultural attraction varies. However, in order to measure the economic impact on the local economy caused by the cultural attraction accurately, the levels of influence on causing the tourists' visits to the destination need to be quantified. This piece of research is concerned with how much of the economic impact can be credited to the visited cultural attraction. That is the question we now address.

Following Young et al (2004), the meaning of causality and causation is as follows:

- 'Causality' is a scientific concept. In the absence of uncertainty, causality means 'if A then V'.
- 'Causation' is a legal concept. In the absence of uncertainty, 'not A implies not V'.

By analogy with Young et al (2004), let

\[ P(A') = q \]

\[ P(C) = p \]
$1 - P(B) = \pi \quad \therefore P(B) = 1 - \pi$

For convenience of reference, the notations of the probabilities have been added into the causal chain model; it gives Figure 4.6 below:

Figure 4.6 The Causal Chain Model with Notations of Probabilities

Following Young et al (2010), let

$\Delta P \equiv P(V|A) - P(V|\sim A)$

1. $P(V|A)$ is the probability of a visit to the destination given the attraction. This includes three different types of probabilities: the probability that the visit happened because the attraction was in that destination, the probability that the visit took place for other reasons, and the probability that the visit happened because the attraction was in the destination and for other reasons.

2. $P(V|\sim A)$ means the probability that the visit would still take place, even if the cultural attraction was not in that destination.

3. $\Delta P$ is the difference between those two probabilities, which means the increase in the probability of visit created by the attraction. This is what Young et al (2010:931) call the ‘probability uplift’ saying that it is ‘the fraction of the visit that can be ascribed to the cultural attraction’.

The value of $P(V|A)$ and $P(V|\sim A)$ can be represented in terms of the probabilities of the implicit events/circumstances as follows.

$P(V|A) = \left[ P(A') + \frac{P(B)}{P(A')}P(B) \right]P(C) = (1 - (1 - q)\pi)p$
\[ P(V|A) = P(B)P(C) = (1 - \pi)p \]

Therefore the uplift probability is the following:

\[ \Delta P \equiv P(V|A) - P(V|\neg A) = [1 - (1 - q)\pi]p - (1 - \pi)p = q\pi p \]

The background probability, uplifted probability and final probability are the three main probabilities that this research project aims to find out. Therefore, in the following section, these three probabilities have been discussed in detail.

1. The **background probability** of a visit is the probability of \( V \), given without \( A \). In other words, the probability of visiting the destination without having attraction \( A \) there.

2. **Probability uplift** is the additional probability of visits to the destination caused by attraction \( A \).

3. **Final probability** is the sum of the background probability and the uplifted probability.

\[ P(V|A) = [P(A') + P(B) - P(A')P(B)]P(C) = [1 - (1 - q)\pi]p \]

Young *et al* (2010) use two other probabilities related to the causal chain. These correspond to the two meanings of causing. The probability in causality (\( k \)) is the probability of \( V \) given \( A \). So

\[ k = [1 - (1 - q)\pi]p \]

\( k = 1 \) means that \( A \) causes \( V \) with no uncertainty in the sense of causality. The probability in causation (\( c \)) is the probability that but for \( A \), \( V \) would not happen. So

\[ c = \frac{q\pi p}{(1 - \pi + q\pi)p} = \frac{\Delta P}{k} \]

Hence, it gives \( \Delta P = ck \)
The equation $\Delta P = ck$ is the fundamental theorem upon which the data analysis of the empirical studies will be based. As indicated in Young et al (2010), $\Delta P$ is the proportion of the visit that can and should be credited to the cultural attraction A. In order to measure $\Delta P$, the value of c and k need to be obtained first. The way this is done in the survey is explained in Chapter 5.

1. Type 1: A visitor who visited the destination purely because of the cultural attraction A, and who has not been influenced by anything else at all. In other words, without having the cultural attraction A, this individual definitely would not have visited the destination, because he/she was not attracted or influenced by anything else related to the destination. In this case, $c=1$ and $k=1$, so $\Delta P = 1$. It means the cultural attraction A has lifted the probability of a visit to the destination for this individual from 0 to 1. Therefore, this individual’s spending while he/she was travelling in the destination can be totally ascribed to the economic impact caused by the cultural attraction A.

2. Type 2: A visitor who visited the destination only because of other reasons (i.e. B is in the causal chain), and all of the information about cultural attraction A has no influence on his/her decision of visiting the destination at all. In other words, regardless of whether the cultural attraction was in the destination or not, this individual was definitely going to visit the destination. In the situation, $c=0$ and $k=0$, therefore $\Delta P=0$, which means A has not given any uplift in the probability of this individual’s visit to the destination at all. Without the cultural attraction A being in the destination, he/she was still certain to visit the destination on the day. Hence, even if the visitor has visited the cultural attraction A, no economic impact can be credited to the cultural attraction A,
because even if attraction A was not there, he/she would still spend the money on something else within the visited destination.

In reality, the above extreme cases only take up a relatively small proportion of the overall visits made to a destination. Both Fernandez-Young and Young (2008) and Young et al's (2010) papers indicate it is rare that a visit is caused by an exclusive cause. The result of Fernandez-Young and Young’s (2008) film project shows most of the visitors who visited the destination are only partially influenced by screen products. A much smaller percentage of tourists stated that they were visiting the destination because, and only because of a screen product. Moreover, the results in all four of Young et al’s (2010) English market town case studies also indicate that relatively large proportions of visitors visited the English market town partially because of the cultural event that took place there on the day, and partially for other reasons. However, the same cultural event has different levels of influence on various individuals, who are also motivated by other reasons to visit market towns. This evidence emphasizes the importance of finding the most appropriate method to evaluate the economic impact caused by a cultural attraction.

The following section discusses how the economic impact partially caused by the cultural attraction should be evaluated. How the economic impact should be evaluated for the two extreme cases is discussed at the beginning of this subsection. For a ‘perfect’ cultural attraction attracted visitor who visited the destination, \( \Delta P = 1 \). In contrast, for a non-cultural-attraction attracted visitor who visited the destination, \( \Delta P = 0 \). As mentioned in Young et al (2010), adopting a binary classification method to evaluate the economic impact requires the researcher to classify all of the visitors into two groups: (1) cultural attraction attracted visitors; (2) non-cultural-attraction attracted visitor. As noted earlier, the results of previous
studies indicate that a large proportion of tourists visited destinations only partially because of the cultural event that happened on the day in the destination or a screen product. In parallel, they were also influenced by other reasons to visit the destination. Without having one of these motivated reasons, those visits may not have happened in those cities and market towns. Moreover, each individual would also have been motivated by the cultural event or attraction at a different level. In other words, how significant the cultural attraction is in bringing the visitor to the destination varies from case to case. For instance, if grouping all of visitors whose ΔP is closer to 0 (0<ΔP<0.4) than to 1 into the non-cultural-attraction attracted group, and grouping all of the visitors whose ΔP is closer to 1 (0.6<ΔP<1) than to 0 into the cultural attraction attracted category, this method leaves people whose ΔP = 0.5 in the gap. Moreover, even all of the visitors can be classified into two groups, the number of visitors influenced at each level is different as well. The sample may contain more visitors who were motivated at the ΔP = 0.4 level rather than the ΔP = 0.6 level. However, if a tourist who has ΔP = 0.4, then he/she would be grouped into the non-cultural-attraction attracted group, and the economic impact would be counted as zero. Therefore, it is very difficult to find appropriate criteria to separate all of visitors into two distinct groups.

Using a probability equation is not able to express the probability of a visit for the partially attraction motivated visitors. Since the influential level of the cultural attraction is different for each visitor, and each individual has been motivated differently by other reasons, it is not possible to find a fixed aggregated equation to represent the probability of visiting a destination for the visitors who were motivated by two or more factors.
In order to be able to estimate the economic impact more accurately, the research decided to adopt the approach by measuring each individual’s uplifted probability in visiting the destination caused by the cultural attraction, then calculate the mean of the aggregated probability uplift that can be ascribed to the attraction by accumulating all individuals’ probability uplift, then divide by the total number of interviewed visitors. The details of the questions used in the questionnaires to acquire a value of c and k for each visitor at tourist sites are discussed in Chapter 5.

4.3 Preference Function and Meta-preferences

Economists generally assume that people are rational, which means that in any given circumstances, people will always have well-defined goals, and always try their best to make choices and act in order to achieve those goals (Cooter and Ulen, 2007). Therefore, economists believe in the theory of rational choice.

In economic theory, utility is a measure of the relative satisfaction from or desirability of consumption of goods, in the opinion of the individual concerned. In reality, each individual has a different utility function, as people have different tastes and preferences.

As Cooter and Ulen (2007) stated, the construction of rational choice theory in the economics world is based on consumer preference ordering. Since consumers have different levels of preference between various goods and services, they are able to rank which one is preferred more or less than another; or which kind of combination of goods/service equals to another bundle. Some economists (Sen, 1977; 1983; 2002; George, 1998) refer to these orderings or rankings of consumer preference as meta-ranking. However, three conditions need to be noted, in terms of the meta-preference, they are complete, reflexive and transitive. ‘Complete’ refers to each consumer’s
preference-ordering needing to be complete; in other words, economists assume each individual is able to tell how she/he ranks all of the possible combinations of goods or services. The ‘reflexivity’ condition means that consumer preferences are enigmatic, and the reason for saying this is because the preferences of consumers are very subjective. Different people have different tastes, and for the same goods and services, two different consumers may have very different orders for the same products in their preference ranking. For the same individual, product bundle X is at least as good as X itself. However, it is difficult to give justifications about how and why they order or rank their preferences in such ways. So economists assume that for the same bundle of products or services, it is at least as good as itself; this is called reflexivity.

The third condition, ‘transitivity’, is the most important of the three. It represents the preference ranking or ordering and conforms to the following rules: if this individual prefers X to Y, and likes Y more than Z, then this implies X is preferred more than Z by this individual, giving the preference ordering X > Y > Z for this individual. The transitivity condition makes it impossible for this individual to have a preference ordering, such as X > Y, Y > Z, but Z > X. First of all, this does not follow the transitivity condition; secondly, it is not logical for people to have a circular preference ordering like that. Schotter (2003) concludes that in the real world, we assume people have transitive preferences, and that ‘transitivity’ is the essence of the rational choice theory in economics literature.

Since each individual has a different preference ordering, a unique utility function can be derived for each individual. This utility function uses larger values to represent the higher preferences in ranking. Assuming there are only two products or services available to the consumer, and taking U to represent the total utility that the consumer

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6 X, Y and Z represent different bundles of goods or services.
gets from different combinations of X and Y, then the utility function can be written as \( U = U(X,Y) \) (Cooter and Ulen, 2007). In economic theory, economists assume each individual is a rational economic agent, once he/she knows their preferences (since economists take each individual's preferences as a given), he/she tries their best to maximize their satisfaction or utility (Schotter, 2003).

Utility has been applied by economists in a format such as the indifference curve, which is defined as a set of bundles (of X and Y) with equal preference for the consumer. In other words, the consumer is indifferent between all of the possible consumption bundles on the same indifference curve (Frank, 1994). In Figure 4.7, an indifference curve is shown on a graph, with the horizontal and vertical axes representing quantities of Goods X and Y respectively.

As indicated above, the indifference curve represents the consumer's preference. The indifference map ranks the different utility levels.

![Figure 4.7 An Indifference Map](image)

Each individual is better off with the indifference curve that is farthest from the origin. The further the indifference curve is from the origin, the higher utility that individual
can gain. For example, in Figure 4.7, I₃ is more preferred than I₂, and I₂ has more utility than I₁, therefore, I₁ < I₂ < I₃.

What a consumer actually consumes (i.e. consumer's choice) depends on two factors: (1) what a consumer wants/prefers (i.e. preference/utility function); (2) what a consumer can afford (i.e. budget constraint/time constraint). The following diagram summarizes this explanation.

**Figure 4.8 What a Consumer Actually Consumes**

There are two main conditions that determine what a consumer actually consumes, if and only if a consumer's preference function and his/her constraints are known, can the best economically feasible consumption choice be made, i.e. rational people will always try to maximize their utility in all situations.

The idea of an indifference curve is derived from the preference function of each individual. A consumer can gain the same amount of satisfaction by choosing any possible consumption bundle on the same indifference curve, so he/she is said to be indifferent on the same indifference curve. Apart from rationality, economists also assume consumers' preferences are continuous, which means they can consume X and Y in any combination on the same indifferent curve.

Figure 4.8 indicates how a rational person makes economically feasible choices between Goods X and Y. The indifference map consists of three indifference curves, I₁, I₂, and I₃; the further the indifference curve is from the origin, the higher the utility
that can be gained from consuming the combinations of Goods X and Y. However, whether the consumer’s situation allows him/her to choose the combinations from the highest indifference curve depends on the constraints.

In Figure 4.9, the budget constraint is line AB, which means the consumer is restricted to any combinations lying within the triangle area AOB. The different bundles of Goods X and Y on the indifference curves I₁, I₂, and I₃ are giving 100, 200 and 300 units of utility respectively. As known, the higher the utility, the more satisfaction the consumer can gain. The question is then which bundle is the one the consumer would choose to maximize his/her utility. Moreover, this bundle is also called the optimal consumption bundle, and is the bundle that is on the highest indifference curve, which is feasible for the consumer to reach. Therefore, for the situation in Figure 4.9, the optimal choice for this individual is Bundle C (i.e. U=200), which maximize this agent’s utility: as Bundle F is also placed on the constraint line AB, it is on a lower indifference curve I₁, which only gives 100 units of utility. Bundle E is on a higher indifference curve, I₃, which provides 300 units of utility, and is higher than Bundle C, however, Bundle E is not economically feasible, as choice E is out of the area AOB.

Since indifference curves do not cross each other, point C is the only point in the economically feasible area AOB at which an indifferent curve is tangential to the constraint line AB. The derivative at the indifference curve I₂ and the slope of the constraint line AB are equal. In other words, the marginal rate of substitution equals the ratio of prices at the consumer optimal choice.
The literature on meta-rankings suggests that it is reasonable to expect that people choose their preference function from a set of feasible choices (Sen, 1982; 1983). Before doing this, it is necessary to look further at how people make their meta-choices. If they are choosing rationally then there must be some functions that they are maximizing.

A brief summary of the economic theory of preferences has been presented, however, there is a small part of the literature on preference theory that goes beyond this and has potential implications with respect to cultural activities. Sen (1977; 1983) introduces the concept of meta-preferences, preferences over preferences. Consider the following simple example. Andy's preference function P ranks his options as follows: (1) smoke cigarettes; (2) smoke cigars; (3) do not smoke. Of the three options available, his most preferred is to smoke cigarettes, and his least preferred is not to smoke. These are Andy's preferences as they stand. However, Andy can also conceive of an alternative preference function, Q, where his preference ranking is: (1) do not smoke; (2) smoke cigars; (3) smoke cigarettes. If Andy had preference function
Q, Andy would choose not to smoke. The idea of meta-preferences is that Andy is not indifferent between having preference function P and Q. For example, it may be that he has preference function P but would rather have preference function Q. In other words, Andy meta-prefers Q to P. He prefers to smoke, but he wishes he didn’t.

If Andy could wipe the slate clean and start over, he would choose to have preference function Q over P. However, at any point in time he is endowed with some particular preference function. He has assumed that he is endowed with P, however, he recognises that he would rather have Q. If it becomes practicable to swap P for Q, he will do so. As the above illustration underlines, making such a swap is not necessarily cost free. One element of the cost is that swapping would entail not smoking for some time. In other words, he would have to do something he doesn’t like in order to gain benefit from it.

In this section, the concepts of preference functions and meta-preferences are based on the proposition that it can assist the tourist in learning to like cultural activities, and this is the aspect that will be considered in the following sections.

### 4.4 The Development of Preference Change Models

In this section, two ‘preference change models’ are developed based on the fundamental theory of preference function. They explain how people can begin to learn to like other goods to change their preference function, and improve their meta-preference ranking.

In the following diagrams, we assume there are two Goods: Goods X, Goods Y; x and y are the purchased quantities of product X and Y. The following diagrams illustrate how the indifference curves change when an individual begins to change their preference function by learning to like Goods Y.
If the individual starts to like Goods Y more and more, the indifference curve will become more and more convex, but what about his/her utility with the same budget constraint or time constraint? By analyzing the following figures, it will be shown how and when people change their preference functions and improve their meta-rankings.

Figure 4.10 Preference Change I

As can be seen, in Figure 4.10 and 4.11, there is a fixed constraint line $y=6-x$. The pink vertical line $I_1$ indicates this individual only consumes goods X initially, because he/she can only gain utility/satisfaction from consuming Goods X, but not Goods Y. With this preference, the utility can be maximized by consuming $x=6$ units of Goods X. The convexity of the blue line $I_2$ is increasing, indicating that this individual could possibly learn to like Goods Y. However, even if he/she did learn to like it, he/she would still not like to choose to consume it. Because he/she can only like it to a certain extent, and the indifference curve is still sufficiently vertical (i.e. $I_2$ is still over
the constraint line, and intersecting the constraint line only at point A, this individual still gains the same amount of utility as before).

To sum up, this individual could learn to like Y, but at the end he/she chooses not to change his/her preference function, since he/she has not learned to like Goods Y sufficiently enough, therefore, his/her optimal choice will still be at point A.

Figure 4.11 Preference Change II

Figure 4.11 indicates another individual who initially only consumes Goods X, as Goods Y may not be able to bring this individual any utility/satisfaction. However, once this individual has come to like Goods Y sufficiently, then he/she will start to consume Goods Y, so the curvature of the initial indifference curve, $I_1$, will become more convex. As indicated in Figure 4.11, a part of the blue indifference curve $I_2'$ comes under the constraint line AB ($y=6-x$). Since a rational person would always maximize his/her utility within the budget constraint, in this circumstance, the individual will move the indifference curve from $I_2'$ to $I_2''$, because $I_2''$ is further
from the origin (0, 0). Within the constraint line, this consumer will be able to gain a higher utility than choosing any bundle choices on the indifference curve $I_2'$. If, and only if, a part of an indifference curve is under the constraint line, can we identify that this individual has not maximized his/her utility. Therefore, the utility can be maximized by shifting the indifference curve up to the position where it only has one point of contact with the fixed constraint line. The above argument clearly indicates that within the same budget constraint an individual could be better off if he/she can learn to like Goods Y sufficiently, and change his/her utility function from a vertical line to a convex one, i.e. $I_2'$. The following part is the algebraic calculation:

The constraint line is:

$$P_x X + P_y Y = m \Rightarrow Y = \frac{m - P_x X}{P_y}$$

$$U = U(X,Y)$$

$$dU = \frac{\partial U}{\partial X} dX + \frac{\partial U}{\partial Y} dY$$

$$\frac{\partial U}{\partial X} dX + \frac{\partial U}{\partial Y} dY = 0$$

$$\therefore \frac{dY}{dX} = -\frac{\partial U/\partial X}{\partial U/\partial Y}$$

$$\therefore \frac{dY}{dX}(X^*,0) = -\frac{\partial U(X^*,0)/\partial X}{\partial U(X^*,0)/\partial Y}$$

Each individual can learn to like Y enough, only when

$$\frac{\partial U(X^*,0)/\partial X}{\partial U(X^*,0)/\partial Y} < \left(\frac{P_x}{P_y} = 1\right)$$
Therefore, if, and only if, when the absolute value of the slope of the consumer's indifference curve is smaller than the absolute value of the slope of the budget constraint, then this individual will be better off by changing his/her preference in order to gain a higher utility within the given budget constraint.

4.5 Integration of Models

McKercher and du Cros (2002) assume that there are five different types of cultural tourists, and then they go on to verify this assumption using survey evidence. They find cultural tourists belonging to all the assumed types. The typology they propose satisfies the need of classifying cultural tourists. However, their typology does not come with an explanation of why any given cultural tourists fall into a particular category. Also, it does not explain why there should be the particular number and structure of categories that they propose.

Before starting to discuss the linkages between the preference models, causal chain model and the typology, the author would like to recall McKercher and du Cros' (2002) cultural tourist typology.
The typology classifies all cultural tourists into five different categories through two dimensions: (1) the importance of cultural tourism in their decision to travel; and (2) the depth of experience sought.

In the following section, the economic theoretical models and the causal chain model are used to construct a new cultural tourist taxonomy, which is similar to the typology (Figure 4.12), but differs in that it explains the number and structure of categories, and also why any tourists should belong to a particular category.

4.5.1 Cultural Tourism Typology and Causal Chain Model

This section explains how the typology and Young et al’s (2004) causal chain model can be integrated together. Five different cause chains are designed especially to match each type of cultural tourist that indicated in the typology. Every causal chain
model is tailored to match and present the features of each type of cultural tourist, indicating where the decision making of the visit takes place.

In some of the following causal chains developed in this section, point C has been separated into two different events/stages, C₁ and C₂ (i.e. Figure 4.13). C₁ represents visiting the cultural tourism destination, while C₂ means visiting the cultural tourist attraction.

![Figure 4.13 The Adapted Causal Chain Model for Typology Illustration](image)

After recalling the meaning of the original causal chain, the further developed causal chains for all different types of cultural tourists are discussed in detail below:

1. For a serendipitous cultural tourist, a cultural attraction does not play an important role in making the decision to visit a cultural destination. After the individual has participated in visiting a cultural attraction in the destination, he/she ends up having a deep cultural tourism experience (McKercher, 2002). By applying this type of tourist's decision-making process to the causal chain model (Young et al, 2004), the following chain is developed.

As stated before, C₁ and C₂ appear in some types of cultural tourists' causal chain models. The serendipitous cultural tourist is one of them (see Figure 4.14). C₁ is visiting the cultural destination, and C₂ shows a decision to visit the cultural attraction in the destination. Therefore, it confirms that for
serendipitous cultural tourists, they make their decisions at stage C (i.e. C₁, while they are visiting the destination) in the causal chain model.

Figure 4.14 The Tailored Causal Chain Model for Serendipitous Cultural Tourist

2. For a **purposeful cultural tourist**, learning about a new culture or heritage is a primary or at least a major reason for their visits to a cultural destination and this type of cultural tourist gains a deep cultural experience after their visits (McKercher, 2002). As indicated in Figure 4.15, for purposeful cultural tourist, the sufficient decision of visiting a destination is made at point A'.

Figure 4.15 The Tailored Causal Chain Model for Purposeful Cultural Tourist

3. The **incidental cultural tourist** is the type of cultural tourist who does not travel for cultural tourism reasons (i.e. travelling to a place to visit cultural attractions). In other words, the cultural attraction in the destination plays no meaningful role in the decision-making process for their visits to the destination. However, while they are at the destination, the individual will participate in cultural tourism activities, and only gain a shallow experience after their visits (McKercher, 2002).

Therefore, in terms of the incidental cultural tourists, the sufficient decision of visiting the cultural attraction is made at point C₁, as shown in Figure 4.16, while they are visiting the destination.
4. The casual cultural tourist is different from the previous three types because the cultural attraction plays only a limited role in each visitor's decision-making process of visiting the destination. The cultural attraction only partially attracted the casual cultural tourists to visit the destination. After their visits, this type of cultural tourist only engages with the cultural attraction in a shallow manner (McKercher, 2002).

As for casual cultural tourists, the sufficient decision of visiting a destination is made at the two highlighted points A' and B in Figure 4.17, because both of the factors influenced their decision-making of visiting the cultural destination V.

5. A sightseeing cultural tourist's major reason for visiting a destination is learning about a cultural attraction or attractions in that destination and this type of cultural tourist gains only a shallow experience after their visits (McKercher, 2002).

As indicated in Figure 4.18, for sightseeing cultural tourists, decisions to visit a cultural tourism destination are made at point A'.

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**Figure 4.16 The Tailored Causal Chain Model for Incidental Cultural Tourist**

```
O ———> C1 ———> C2 ———> V
     |         |         |
     +———> B +———>
```

**Figure 4.17 The Tailored Causal Chain Model for Casual Cultural Tourist**

```
O ———> A ———> A'
     |         |         |
     +———> B +———>

C ———> V
```
The above analysis links the typology (McKercher and du Cros, 2002) and the causal chain model (Young et al, 2004) together and indicates where each type of tourist’s decision to visit a destination has been made. This recalls the issue of centrality that McKercher and du Cros (2002) raised in the literature, which the causal chain model can be used to resolve. As the causal chain identifies the decision making points for each visitor, researchers can find out which roles the cultural destination plays in the causal chain.

The key findings when integrating these two theories does not involve the level of experience that tourists achieved or sought after their visits to the destination and cultural attractions. In other words, how people felt and what they had gained after their visits to certain destinations have not been factored into the discussion above. In the following section, an integration of the preference change models and the typology will be given to discuss the various levels of tourists’ experiences that they have achieved after their visits.

### 4.5.2 Cultural Tourist Typology and Preference Change Models

This section discusses the relation between preference models and the vertical dimension (i.e. depth of experience sought) in the cultural tourist typology. Recalling the two ‘preference change models’ developed in Section 4.4, and for convenience, in Figure 4.19 and Figure 4.20, the ‘Goods Y’ have been replaced by ‘Cultural Attraction A’, so these models can be applied directly to cultural tourists.
After a certain visit to a cultural attraction, e.g. museum, art gallery, castle, monument, etc.: (1) if an individual changed his/her preference function, then it indicates there is an investment value to this individual. This is in the sense that once his/her utility
function has been changed to include cultural attraction A as an argument, it will then remain so and he/she will continue to enjoy a higher level of utility for the indefinite future; (2) If people do not change their preference function, then the result indicates that the cultural attraction A has a consumption value only to this individual.

What flows from this analysis is that, for some tourists, there may be a motive for cultural tourism that derives not from having a preference, but instead from a meta-preference. If a prospective tourist is in the position that he/she could potentially come to like cultural attraction A sufficiently, then he/she may participate in related cultural tourism activities for the purpose of learning to like cultural attraction A. This motive applies to only a proper subset of tourists for two reasons. Firstly, some prospective tourists will be in a position in which they will not be able to come to like cultural attraction A sufficiently. Secondly, once a tourist has developed a liking for culture similar to cultural attraction A, the preference-forming motive will have gone and future cultural tourism will be preference-following.

The proposition that has been carried forward from this analysis is that preference-following tourists can be associated with the typology categories for those having a shallow experience, while a preference-forming experience is linked with the deep experience category.

Figure 4.19 represents cultural tourists who achieved shallow experiences through their visits to cultural attraction A. This includes the following three types: (1) Incidental Cultural Tourist; (2) Casual Cultural Tourist; (3) Sightseeing Cultural Tourist. As illustrated in Figure 4.19, these three types of cultural tourist only gained a shallow experience after their visits, with each individual's experience not being sufficient to cause his/her preference changes. In other words, they tried to learn to
like cultural attraction A, but they did not like it enough. Therefore, they still have the same preference function as before their visits.

In contrast, Figure 4.20 represents cultural tourists who gained a deep experience after their visits. According to McKercher and du Cros’ (2002) typology, the preference-following model includes ‘serendipitous cultural tourist’ and ‘purposeful cultural tourist’. Since these two types of tourist have gained deep experiences after their visits, their experience is sufficient to change their preference within the same constraint line (i.e. budget, time, etc.). Those two types of cultural tourist tried to learn to like cultural attraction A, and the outcome is that they enjoyed it very much and also learned to like cultural attraction A sufficiently to let themselves be better off by changing their preference functions.

This preference analysis has implications for the economic consequences of cultural tourism for the tourist. As Figure 4.20 explains, a tourism experience that expands the visitor’s preference has a long-term investment value. These considerations place particular emphasis on the serendipitous cultural tourist and the implications of this for the marketing of cultural tourist attractions needs to be considered.

4.6 A Further Category for the Cultural Tourist Taxonomy

The McKercher and du Cros (2002) typology is based on two dimensions, each of which is a continuum. The vertical dimension is depth of experience, ranging continuously from shallow to deep. McKercher and du Cros (2002) choose to divide this dimension into two ranges: shallow and deep. The interpretation of the typology in Section 4.5.2 provides a more fundamental reason for why they propose two (and only two) rows. According to the economic preference change models, for cultural
tourists, the achieved outcomes of visiting cultural attractions can be either preference-forming or preference-following.

The horizontal dimension of the typology is the ‘importance of cultural tourism in the decision to visit a destination’. Again, this is conceived of as being a continuum. It is divided into two categories in the upper (deep experience) part of the diagram and three categories in the lower (shallow experience) part. The causal chain approach discussed in Section 4.5.1 associates with the horizontal dimension, with the role of cultural tourism (i.e. cultural attractions or events) in the causal chain leading to a visit to a destination.

In this horizontal dimension, there are three (and only three) possibilities in terms of the causal routes of the visit to the destination. The causal chain any tourist may have been through, is the decision to visit a cultural attraction at the destination, depending on this exclusively (i.e. purposeful and sightseeing cultural tourists). Alternatively, the cultural attraction may not have been involved in the causal chain (i.e. serendipitous and incidental cultural tourists). Finally, the attraction may have been involved in the causal chain, but not in such a way that it was a necessary condition for the visit (i.e. casual cultural tourists).

However, the author proposes that there is a fundamental reason for there being three, and only three categories to do with the decision to visit, implying that a further category in the upper part of the typology is required.

In this newly-developed taxonomy, a new category is added that has a causal chain in which the cultural attraction is present but not essential (as in the case of a casual cultural tourist), and has a preference-forming motive (as in the cases of serendipitous and purposeful cultural tourists). This sixth category has been referred to as ‘the
intentional cultural tourist’. For this type of tourist, the cultural attraction is one of the reasons for them to visit the destination, but it is not the only reason. The individual’s motive for visiting the attraction is that it will assist him/her in adding a new dimension to his/her preference. In other words, it assists the individual in learning to like some new cultural attractions or activities. Therefore, the tailored causal chain model for intentional cultural tourists is shown in Figure 4.21.

Figure 4.21 The Tailored Causal Chain Model for Intentional Cultural Tourist

Similar to the casual cultural tourists, for the intentional cultural tourist, each individual’s sufficient decision for visiting a destination is made at both points A’ and B, since both of the factors influenced the tourist’s decision-making for visiting the cultural destination. In contrast to the casual cultural tourists, the intentional cultural tourists can gain deep experience after their visits to the destination. Hence, they can be better off within the same constraint line by changing their preference functions.

With the above discrete interpretation of McKercher and du Cros’ (2002) dimensions and including the additional category into the taxonomy, it gives the following new cultural tourist taxonomy (Figure 4.22). The causal chain referred to is the causal chain leading to a visit to the destination and the attraction is alone in the chain if it is a necessary (but not sufficient) part of the chain.
4.7 Implications and Recommendations

Beyond the foregoing suggested developments of McKercher and du Cros’ (2002) typology of cultural tourist, the newly designed ‘Cultural Tourist Taxonomy’ has two principal implications in terms of the consequences of cultural tourism.

The first of these derives from the causal analysis discussed in this chapter, and is concerned with the value of the cultural attraction to the destination. In the case of a purposeful or sightseeing cultural tourist, as they have been interpreted in the categories, but for the cultural attraction at the destination, their visits to the destination would not have occurred. It follows that, in these cases, the whole of the benefit to the destination deriving from the visits can be attributed to the cultural attractions.

In the case of the serendipitous and incidental cultural tourists (again, as they have been interpreted in the categories in the taxonomy), the cultural attraction plays no part in the causal chain leading to the destination visit and, therefore, no part of the benefit of the visit to the destination can be ascribed to the cultural attraction in the destination.
But there is also a third causal possibility, which now embraces the two categories of casual and intentional cultural tourists, in which the cultural attractions have added to the probability of a tourist visit to a destination. These tourists had a reason to visit the destination anyway, but the cultural attraction added a further reason. In this situation, a part, but only a part, of the benefit derived from the visit can be attributed to the cultural attraction. The fraction that is attributable is equal to the product of the probability in causality and the probability in causation (which can be estimated empirically from appropriate survey data).

The second implication for the consequences of cultural tourism is that the segregation of cultural tourists into preference-following and preference-forming makes a distinction in terms of the way in which the visit is of value to the tourist. Setting aside mistakes, a cultural tourist of any sort derives some benefit from a visit to the cultural attraction. In the case of preference-following tourists (i.e. incidental, casual and sightseeing cultural tourists) the benefit is the utility derived from the visit at the time (i.e. during their visits). In the case of preference-forming tourists (i.e. serendipitous, intentional and purposeful cultural tourists), the change in the utility function to which the visit contributes is an enduring one (i.e. not only during the visits, but also after their visits). The benefit to these types of cultural tourists continues, and the value of the visit to the tourist consists of the present value of future benefits, discounted and aggregated. The tourist benefits to an extent that includes the sum of a number of benefits, from the time of the visit extending into the indefinite future.

It may be worth observing that the interests of attractions and the interests of tourists combine orthogonally. The attraction can claim the most value when its role in the causal chain is a necessary one, i.e. when a visit to a destination depends wholly on
the attraction. On the other hand, the benefit to the tourist depends on whether the
effect of the visit to the attraction is preference-following or preference-forming,
irrespective of the causal chain leading to the visit. For example, a serendipitous
cultural tourist will derive an enduring benefit from a visit although the cultural
attraction played no part in his/her coming to the destination. A sightseeing cultural
tourist motivated solely by the cultural attraction in coming to the destination will
derive only an instant benefit. In principle, there is no conflict of interests, but nor is
there any complementarity. Whether there is, in fact, either a conflict or
complementarity depends on whether the causal categories correlate with the
preference categories. This is a matter for empirical investigation.

4.8 Summary

In this chapter, the causes of a cultural tourist visit have been modelled using the
causal chain. The causal chain model includes two routes from the origin of events to
the outcome, a visit to the destination happening. Because there are two and only two
routes, there are therefore three and only three possible ways for the visit to happen: it
can happen because of the cultural attraction, because of another reason or a
combination of both. Therefore, in terms of the causes of cultural tourism we have
three categories. If a visit happens only because of the cultural attraction, all of the
economic impact of the visit comes into the assessment of the attraction's impacts. If
the visit is partly because of the attraction, only a part of the economic impact can be
included in the assessment.

The consequences of cultural tourism have been modelled in terms of preferences and
meta-preferences. A visit may be preference-forming or not. In other words, it may or
may not contribute to changing the visitor's preference function. This implies two
categories for consequences. If there is a change in preferences, the effect of this for
the visitor will continue into the indefinite future and there will tend to be a comparatively large cultural impact.
Chapter 5 Survey Design and Conducting the Survey

5.1 Introduction

This chapter presents the aims of the focus groups and how they were planned, organised and conducted. It also explains the key findings of the focus groups and how the results helped with modifying the cultural tourism taxonomy and designing the four versions of the questionnaires for the selected survey attractions. Moreover, this chapter also discusses how the whole survey process was completed in detail, i.e. choosing the survey sites, survey planning, piloting and finalizing the questionnaires, organising and conducting the surveys at NC and the GOJ.

5.2 Focus Groups

5.2.1 Aims of the Focus Groups

Both of the focus groups took place at the Nottingham University Business School during August-October 2009. As established in Chapter 3, focus groups serve many purposes in this study. The aim of running two focus groups was to use the collected information from the groups to help design questionnaires for the survey, as well as to give researchers ideas about whether the theoretical model (i.e. new cultural tourist taxonomy) is well developed. The focus groups help to test whether the newly designed taxonomy is compatible with how cultural tourists make their decisions to visit cultural destinations/attractions in reality, and whether the taxonomy is complete. Therefore, developing an appropriate questioning route that helps to achieve the major research objectives is crucial. In order to do so, it is important to design the focus group questionnaires around the following main streams: how cultural tourists choose cultural attractions to visit and whether they use cultural tourism products as a tool to learn new knowledge in order to change their preference.
The process of the agenda for the focus group development is dynamic. The second focus group's agenda is modified and improved from the experience and the knowledge/results gained at the previous one. This study's targeted population is tourists and locals, so the focus groups' first aim was to recruit the appropriate number of participants, and secondly, for the researcher to use focus groups to stimulate discussion among participants about the causes and consequences of cultural tourism. By asking participants questions related to the research objectives, the researcher can gain a better idea of how to model the causes and consequences of cultural tourism using a hypothetical rational person as the reasoning device.

The focus groups' first aim was to discuss with the participants what first comes to their minds when people mention cultural tourism or cultural heritage to them, and whether they have ever taken part in cultural tourism before. Secondly, the researcher aimed to find out how far in advance cultural tourists make their travelling decisions. This was followed by asking the participants when they are planning a holiday, whether they normally consider a destination (i.e. a city, a region or a country) or an attraction (i.e. a cultural attraction or a cultural event) first, and why. The focus group discussion was used to assess people's preferences to cultural tourism by raising the question of whether a holiday or visit to a certain cultural destination/attraction has ever changed their preference or attitude to cultural tourism, especially their preference to the type of culture related to the visited place. The focus group discussions also enable the researcher to gain an understanding of why their visits to cultural attractions did or didn't change their preference and whether they think visiting cultural attractions could change people's preferences. Furthermore, focus groups also aim to test issues relevant to the development of the questionnaires, whose major objective is to assess the economic and cultural impacts caused by the
cultural attractions. For example, asking the participants to read and answer the first version of the questionnaire to test the wording; enquiring whether participants would feel comfortable if they were asked the questions in the draft of the questionnaires by an interviewer at a cultural attraction.

Therefore, the focus groups’ main aims were:

1. To identify and test the compatibility and completeness of the designed cultural tourist’s taxonomy, and to investigate whether there really are six types of cultural tourists, and whether other factors should be taken into consideration for the development of the taxonomy.

2. To obtain background knowledge about how and when tourists make their travelling decisions before they go on holiday and visit a destination or an attraction.

3. To clarify and interpret the ideas of whether people use cultural tourism as a method to change their preference. In other words, to find out whether cultural tourism can change people’s preference.

4. To test parts of the survey questionnaires, including the wording of the questions and appropriateness of the questions for cultural tourists and locals.

5. To define a list of cultural tourist attractions that participants think of as a cultural tourist, that they would like to visit and learn more about that related culture.

The agenda of the first focus group followed all of the above aims. As noted in Chapter 3, a focus group is a very dynamic experience, so researchers need to follow the inputs given by different participants to gain the most from the session. The agenda of focus groups is therefore likely to change according to the development of discussion during the previous session and the level of knowledge saturation achieved.
on the topic being investigated. Figure 5.1 illustrates the links among the two focus groups and also indicates the serving purposes of the focus groups.

**Figure 5.1 Links among the Focus Groups and the Main Research Objectives**

As illustrated in Figure 5.1, the results of the first focus group were used as the basis to develop the second focus group agenda. The outcomes from both focus groups were used to further guide the theoretical model development and survey design.

### 5.2.2 Focus Group Organisation

Focus group participants can be recruited in different ways. In this study, participants were recruited at the University of Nottingham. Invitation emails and posters were circulated around various departments to staff and students two to three weeks before the focus groups took place. The interested participants then confirmed their attendance through emails or telephone calls. All 12 participants who attended the focus groups were either staff or students at the University of Nottingham. Some were permanent staff or students who had studied in Nottingham for a long time; some were only exchange students or visiting scholars who were only in Nottingham for a short period.
The focus groups' agenda and questioning route, shown in Figure 5.2, was structured to tackle the research objectives of this study, and to gather a wealth of information to inform future research developments and provide a good overview of cultural tourism.

**Figure 5.2 Focus Group Plan**

The focus group agenda helped the facilitator control the way the discussion progressed and ensured the important issues were discussed. Both focus groups were conducted in English and voice recorded. When the participants arrived, they were welcomed and seated before the facilitator explained the outline and aims of the focus groups to the participants. Participants were also told that there was no right or wrong answer in the discussion, to encourage the participants to express their real answers.

### 5.2.3 The First Focus Group

#### 5.2.3.1 Introduction

The first focus group took place on Friday, 7th August 2009 in Seminar Room A09, International House at the Nottingham University Business School. The session started at 3pm and lasted for an hour and ten minutes. The audio of the entire focus group was recorded for future analysis (e.g. transcription, content analysis, etc.). Six participants attended the focus group along with the researcher, Miss Jing Wang, who was the facilitator of the focus group.
All six participants were either staff or students of the University of Nottingham; because they all had relatively high educational backgrounds, the facilitator did not have any difficulty in delivering the correct meanings of the questions and getting rational feedback. All six participants were from different countries, and this helped the facilitator to gather more comprehensive and reliable feedback, as the targeted population of survey collection are general visitors at cultural attractions.

5.2.3.2 Summary of the First Focus Group Scripts

➢ First Focus Group Questions Route

1. After explaining the outline and aims of the focus group, the facilitator invited all participants to introduce themselves briefly and write their names on the provided badge. This was an ice-breaking stage, which helped them to get to know each other, and then they felt more comfortable to talk openly to the others.

2. Facilitator explained to all participants what cultural tourism is, then asked them whether they had ever taken in part of cultural tourism before, and how they view culture and cultural tourism.

3. What would come into your mind when I mention cultural heritage and cultural attractions?

4. What reasons motivate you to travel? How far in advance do you make your travelling decisions?

5. When you are planning a holiday, would you consider a destination or an attraction first?

6. Has a holiday ever changed your attitude or preference to the culture associated to that place you visited? Do you think it could, and if so why?
The first focus group went smoothly and was a success. The feedback collected from the focus group has confirmed the pre-existing model (i.e. the new cultural tourist taxonomy). The key points of the first focus group’s transcription are summarized below.

**Question 2 Have you ever taken part in cultural tourism? How do you see culture and cultural tourism?**

The first interesting point was raised by Marcello and agreed by all participants; they believe that every place, city and destination has its own culture, which to them includes food, history, lifestyle, music, sports, cultural events and cultural tourism sites, etc. Ehab pointed out that sometimes people travel to different places, but they do not realise they are cultural tourists, although they were actually consuming culture without noticing it.

**Question 3 What comes into your mind when I mention cultural heritage and cultural attractions?**

The participants believe cultural heritage and cultural attractions include: museums, galleries, monuments, urban and countryside landscapes, historical/archaeological sites, famous buildings, contemporary architecture, cultural events, festival fairs, theatres and old pubs.

The above list guided the researcher when choosing appropriate cultural attractions for survey collection.

**Question 4 What reasons motivate you to travel? How far in advance do you make your travelling decisions?**

Blaise said that his friends change how they see him every time he travels back home from holidays. From how his friends treated and talked to him, he could tell that they
think he is a high-class and well-educated person with lots of knowledge about the
famous places that he has visited, therefore, his friends started respecting him more.

Joel also supported the point made by Blaise using the example of going to a classical
music concert. He always enjoys listening to classical music, and even went to Vienna
to attend musical concerts. Some of his friends look at him slightly differently, and
think Joel is a posh person because the majority of his friends (aged 20-30) only like
R&B, rock and pop music. However, Joel clarified that the main reason motivating
him to travel to places to enjoy musical concerts is purely his own interests.

Ehab answered this question from his own angle. He stated that he feels differently
about himself every time after his visit to a destination, and the reason is that he feels
he knows more about the culture of that place. In other words, Ehab believes gaining
knowledge about the culture and history associated with the visited destinations
makes him see himself differently. The example he had given was that his visit to the
British Museum made him become someone who had been to one of the most famous
museums in the world and who now knew more about the museum itself. Marcello
also supported Ehab’s statement by using his own experience of visiting the Great
Wall of China. He felt he was more associated with China after his visit, as he had
learned more about that country during his trip.

Marcello also indicated he sometimes travels to learn and experience new things. He
never liked jazz, as he thought it was not his type of music, but once he was
persuaded by his friends and joined them at a jazz concert, he really enjoyed it. From
then on, he started buying jazz CDs and attending more events related to jazz. He
realized that the more he knew about jazz, the deeper he loves it, and now listens to
jazz whenever and wherever he can.
Lihe gave a similar example, but with a totally different outcome. Peking Opera is one of the most famous types of traditional Chinese music, and many people believe it is the essence of Chinese music. Lihe’s parents like it very much, so she wanted to learn more about this type of opera, so that she can enjoy the Peking Opera with her family in the long term. She went to Mei Lanfang Grand Theatre a few times to watch Peking Opera. Although those operas provided many opportunities for her to learn more about Peking Opera, she still does not like listening to it. As an outcome, she gave up with it.

Both Marcello and Lihe gave examples about initially being motivated to go to events/theatres to learn to like a type of music, but the outcomes are completely contrary. However, Joel’s example of classical music is totally different from the above two people, as his motive is ‘learning about’ and ‘learning more’ knowledge of classical music.

*The following scripts are the responses to the second half of Question 4: ‘How far in advance do you make your travelling decisions?’*

All of the participants said it depends on where they travel to first. If it is a proper holiday with family and friends, then they would definitely plan it in advance. However, Kamel indicated that sometimes when he travels by himself, he only makes plans about how to reach the destination and where to stay when he arrives. The rest of the issues (e.g. which attractions and tourism sites that he would like to visit) would all be decided after he arrived in the city.

Marcello supported Kamel’s statement and indicated that if it is a trip mainly for business or work-related purposes, and there was spare time for him to explore the destination more, he would do research about attractions in that city beforehand in
order to visit the more interesting sites there. Once, when presented with two equally
good conferences that he could present his paper at, he eventually went to the one
held in the city that has more interesting cultural attractions.

**Question 5 When you are planning a holiday, would you consider a destination or an attraction first?**

After asking this question, the facilitator provided an example to help participants to
understand the question clearly. The example was, a tourist only decided to visit the
city of Nottingham initially, but while in Nottingham, then decided to visit
Nottingham Castle and Wollaton Park.

Although the answers to this question vary among the participants, they actually all
follow the same logic. Whether a destination or an attraction comes first depends on
the purpose of that visit, how famous that destination is and whether there are any
interesting attractions in that destination. If the destination is very well-known itself,
then it is more likely they would travel to that city for a holiday and then find the
attractions that they are interested in visiting.

However, different people have different preferences, for instance, Marcello said
although Paris is one of most famous cities in the world, he actually went there only
to visit the Louvre Museum and that was the only thing he did while there.

Furthermore, the participants also mentioned that the decisions are also influenced by
time and money constraints. Lihe mentioned she thinks St. Petersburg is an amazing
destination with a long history, which is worthwhile visiting. It also has one of the
most famous museums in the world - the State Hermitage Museum. Both the
destination and the cultural attraction are very attractive to her, but it is very
expensive, so she could not afford to visit St. Petersburg.
Question 6 Has a holiday ever changed your attitude or preference to the culture associated with the place you visited? Do you think it could? And why?

All six participants confirmed that they had changed their attitude to the culture associated with the visited destinations before.

Joel gave an example about his travelling experience in Ghana. While he was there, he chose to stay with a local family instead of staying at a nice hotel. He had not only visited the cultural tourism sites that the normal tourists would all visit, but also did things that a normal tourist would never be able to experience. For example, Joel lived in a farmer's house in the countryside; he had authentic African style home-made food every day; he also worked on a farm with his host family. Joel said that although all of those experiences were not easy to get used to in that short period (e.g. working on a farm for the whole day is a very tough job), overall, he enjoyed his trip to Ghana. This is mainly due to the fact that his unique experience helped him to gain a great deal of knowledge about the real Ghanaian culture and the locals' living style, and those experiences made him feel closely associated with Ghana.

Blaise told us that according to his previous travelling experiences, being in the actual cultural attractions makes him feel different from watching the virtual tours online. After each visit, he feels that he is more associated with that type of culture and that specific place. He gave the example of his visit to the Eiffel Tower. Before he visited Paris, he had seen the Eiffel Tower in pictures and films many times, but only when he had actually climbed and touched the real Eiffel Tower, did he feel himself more closely connected to it as the global icon of France. He said this was mainly because he had learned more about the Eiffel Tower. Because of this special connection, he bought postcards, paintings and calendars depicting the Eiffel Tower's image.
Lihe agreed with Blaise, as she also stated that being at the actual cultural attractions made her feel more connected to those places, and she started to appreciate more about the things associated with those places that she had visited in her life, and especially the ones that she really enjoyed. She talked about how much she enjoyed her trip to Italy in 2008. She not only enjoyed visiting the churches, cathedrals and museums there, but also enjoyed just being in Italy. She loved walking around the local streets in each town, seeing how local people have their family gather around in an Italian coffee shop, observing how Italians communicate with each other through body language, etc.

Ehab stated that he agreed with Blaise and Lihe’s experience and also had the same kind of experience. However, he added another interesting point about the fact that sometimes the actual tourist attraction does not necessarily provide the tourists with real cultural experience, because of the problem of tourism commercialisation. As an Egyptian, Ehab used the following example to illustrate his point. He stated that the tourist who went to Egypt and only stayed in Sharm el-Sheikh would not be able to gain any real cultural experience of Egypt, because Sharm el-Sheikh is a place with special focus on developing its foreign tourism industry, and the majority of things there are either not authentic or westernized. In other words, what tourists experience is not a true representation of Egyptian culture, but a modern, luxury recreational experience. Therefore, visiting the destination does not necessarily provide tourists with a real cultural experience.

5.2.3.3 Content Analysis of the First Focus Group

After presenting the summarized transcription of the first focus group, the content analysis method is used to analyse the verbal communication data collected during the first focus group. Content analysis is a commonly used systematic research method
for analyzing qualitative data (or textual information) in a standardized way. This method counts the number of times a particular word or concept occurs in a discussion through a coding process, and it allows researchers to make replicable and valid inferences from the collected information (Weber, 1990; Krippendorff, 1980). The coding and results of content analysis for Question 2 to Question 6 are summarized below:

<table>
<thead>
<tr>
<th>Q2: Have you ever taken part in cultural tourism? How do you see culture and cultural tourism?</th>
<th>Yes</th>
<th>No</th>
<th>Culture</th>
<th>Cultural tourism</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 participants</td>
<td>None</td>
<td>6 participants: including food, history, lifestyle, music, sports, cultural events and cultural tourism sites.</td>
<td>6 participants: travelling to different places to consume/enjoy their culture.</td>
<td></td>
</tr>
</tbody>
</table>

As shown in the table above, all six participants have taken part in cultural tourism before and think that every place has its own 'culture', which includes food, history, lifestyle, music, sports, cultural events and cultural tourism sites at each place. 'Cultural tourism' is the activity where people travel to various places to consume and enjoy the culture associated to those places.

<table>
<thead>
<tr>
<th>Q3: What comes into your mind when I mention cultural heritage and cultural attractions?</th>
<th>Museums &amp; Galleries</th>
<th>Monuments &amp; Historical sites</th>
<th>Cultural events/festivals</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 participants</td>
<td>6 participants</td>
<td>4 participants</td>
<td>Urban &amp; countryside landscapes, famous buildings, contemporary architecture, theatres &amp; old pubs.</td>
<td></td>
</tr>
</tbody>
</table>

All of the six participants stated that museums, galleries, monuments and historical sites are the most representative things that come to mind when they hear cultural heritage and cultural attractions. Four participants also said cultural events and festivals are popular cultural attractions to them; Urban and countryside landscapes,
famous buildings, contemporary architecture, theatres and old pubs have also been mentioned in the discussion.

The results help researchers understand what type of attractions cultural tourists think of and visit most often. The top rated attractions assist the researcher when selecting potential venues for survey collection.

<table>
<thead>
<tr>
<th>Q4-1: What reasons motivate you to travel?</th>
<th>Personal interest</th>
<th>To learn more &amp; experience more</th>
<th>Status/respect</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 participants</td>
<td>4 participants</td>
<td>2 participants</td>
<td></td>
</tr>
</tbody>
</table>

| Q4-2: How far in advance do you make your travelling decisions? | Dependent on where they travel to & who they travel with | Plan before: travelling with family & friends | Plan after arriving: travel by himself |
|---------------------------------------------------------------|--------------------------------------------------------|-----------------------------------------------|
| 6 participants                                               | 6 participants                                         | 2 participants                                |

The results of Q4-1 and Q4-2 have been coded into three main categories. Four participants stated that the main reasons motivating them to travel are 'their personal interests' and 'the willingness to learn more and experience more' about the visited places. Additionally two participants mentioned gaining more 'respect' and higher 'social status' as their main motives.

In terms of how far in advance tourists make their travelling decisions, all six participants indicated that it depends on where they travel to and who they travel with. If they go on holidays with friends and family, they would definitely plan before travelling. Two participants stated that if they travel individually, they would plan after arriving at the destination.

<table>
<thead>
<tr>
<th>Q5: When you are planning a holiday, would you consider a destination or an attraction first?</th>
<th>Considering a destination first</th>
<th>Considering an attraction first</th>
<th>Considering both &amp; depends on other factors/constraints</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>1 participant</td>
<td>5 participants</td>
<td></td>
</tr>
</tbody>
</table>
Five participants stated that when they plan holidays, both destinations and attractions would be taken into consideration, however, it also depends on other factors and constraints, such as the purpose of that visit; how famous the destination/attraction is; whether money and time are sufficient. Only one participant indicated that he would consider an attraction first (e.g. Louvre Museum vs. Paris). The result of Q5 has also confirmed the possibility of all three paths in the casual chain model (See chapter 4), which is built into the cultural tourist taxonomy.

<table>
<thead>
<tr>
<th>Q6: Has a holiday ever changed your attitude or preference to the culture associated with the place you visited? Do you think it could? And why?</th>
<th>Changed before</th>
<th>Never Changed</th>
<th>Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 participants</td>
<td>None</td>
<td>1. Gaining more knowledge about the places/objects makes participants feel more connected to them, hence, they would appreciate more about the things associated with those places/objects (4 participants); 2. A new issue: the importance of whether the cultural experience is real and authentic (2 participants).</td>
<td></td>
</tr>
</tbody>
</table>

The results of Question 6 indicate that all six participants have experienced holidays that have changed their preference or attitude to the culture associated with the places they visited. Four participants mentioned that visiting cultural tourism attractions helped them gain more knowledge about the places/objects, and made them feel more connected to those cultural attractions. The gained knowledge and experience also made the participants start appreciating other things associated with those attractions.

The discussion of Question 6 has not only clarified and interpreted the fact that tourists do use cultural tourism as a method to change their preference or attitudes, but also raised an interesting issue: the matter of authenticity. Two participants emphasized that whether the cultural object/experience is real or authentic has an important effect on their preference changing. The new issue of authenticity will be discussed further to gain more insights in the second focus group.
5.2.3.4 Key Findings of the First Focus Group

After presenting the results of content analysis, the key findings discussed in the first focus group are summarized below:

1. The first focus group confirmed both dimensions of the cultural tourism taxonomy are feasible and reasonable. All of tourists’ categories in the taxonomy have represented all possible causes and consequences of cultural tourism.

   - The majority of the participants indicated that they had been influenced by cultural tourism before, and in some cases cultural tourism had changed their attitudes or preference to the destination or the culture associated with the place.

   - The decision-making process for visiting a destination/attraction was carried out at various times. Some participants indicated that they do sometimes travel to destinations solely because they would like to visit a certain attraction. However, some stated that they consider both destination and attraction factors. If the destination is very well-known by itself, then it is more likely that they would decide to travel to that destination and then find attractions that they are interested in visiting.

2. In the tourists’ opinion, cultural tourism includes visiting: museums, monuments, art galleries, castles, churches, landscapes, cycling routes, cultural events, archaeological sites, new buildings, contemporary architecture, urban sights, theatres, bars and restaurants.

3. Two types of interesting answers were given by participants to the question ‘what reasons motivate you to travel?’ The first reason is related to ‘regard
and social status’, in other words, it is to do with ‘how people are regarded by others’; the second reason is associated with ‘learning to like, gaining knowledge and self-achievement’, this is related to ‘how the individual sees him/herself’.

4. Participants also confirmed that once they had changed their preferences about the cultural destination/attraction, they would start consuming more things related to it, as they appreciate it more than before. For instance, buying calendars and posters depicting the Eiffel Tower’s image.

5. Last but not least, the idea of ‘authenticity’ was raised. The facilitator asked the participants what motivates them to visit cultural attractions/destinations and whether a holiday had ever changed their attitude to, or preference towards, the culture associated with the place they visited. When the participants were answering those questions, the majority of them mentioned the following descriptive words: authentic, real, fake, true, unique, and original. They believed going to the real place is very different from seeing the place online, because touching and seeing the real objects, walking around and experiencing the real local people’s life makes them feel that they are associated with it and they become more closely connected to the actual tourist attractions than before. However, one participant raised the point that because more and more tourist destinations have been commercialized, fake objects can often be seen.

6. All of the mentioned descriptive words can be categorized into one group: authenticity. The focus group result proves that authenticity plays a very important role in attracting people to visit cultural attractions and changing their preference or attitude to the culture associated with the place visited.
Moreover, among the examples given by the participants, the authenticity has two different meanings: (1) the objects that the tourists see are real or original; (2) the authenticity describes the true and real experiences that tourists are able to gain at the cultural destinations.

Among all of the points raised during the first focus group, apart from the idea of ‘authenticity’, the rest of the related key findings have already been included in the cultural tourist taxonomy (Figure 5.3). According to the results of the focus groups, ‘authenticity’ is an important factor that the newly designed cultural taxonomy has not taken into consideration.

**Figure 5.3 A Cultural Tourist Taxonomy**

<table>
<thead>
<tr>
<th>Preference-forming</th>
<th>Serendipitous cultural tourist</th>
<th>Intentional cultural tourists</th>
<th>Purposeful cultural tourist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preference-following</td>
<td>Incidental cultural tourist</td>
<td>Casual cultural tourist</td>
<td>Sightseeing cultural tourist</td>
</tr>
</tbody>
</table>

Attraction not in causal chain  
Attraction in causal chain but not alone  
Attraction alone in causal chain

### 5.2.4 The Second Focus Group

#### 5.2.4.1 Introduction

Following the focus group plan, the second focus group question route was modified to include some new questions designed to test and confirm the new key findings (i.e. authenticity, preference changes) gathered from the first focus group.

The second focus group took place on Friday, 30th October 2009 at 11am in Seminar Room C1, Exchange Building at Nottingham University Business School. The session lasted for an hour and ten minutes (the whole length was recorded), and six
participants attended the focus group. To be consistent, Miss Jing Wang was the facilitator at the focus group.

Similarly to the previous session, all six participants were either staff or students at the University of Nottingham. Again, because they all had relatively high educational backgrounds, the facilitator did not find any problem delivering the correct meanings of the questions and getting rational feedback from the participants. The six participants were from four different countries, which helped the facilitator to gather more comprehensive and reliable feedback.

5.2.4.2 Summary of the Second Focus Group Scripts

➢ Second Focus Group Questions Route

1. After explaining the outline and the aims of the focus group, the facilitator invited all participants to introduce themselves briefly and write their names on a provided badge. There was an ice-breaking stage, which helped them to get to know each other, and then they felt more comfortable to talk openly to the others.

2. What would come to your mind when I mention cultural heritage and cultural attractions?

3. Why do you travel to cultural tourist attractions? Or what are the reasons that motivate you to travel to cultural tourism destinations?

4. Do you think cultural tourism has influenced you before? In other words, has a holiday ever changed your attitude to cultural tourism? Do you think it could? Why?

5. After going to places, if you did enjoy the visits, would you re-visit those places or visit any places which have similar types of culture?
6. When you make decisions about visiting cultural destinations or cultural attractions, do you take authenticity\(^7\) into consideration?

7. There followed a question that tests the causal chain dimension of the cultural tourist taxonomy. An assumption question: "There are two very similar conferences to be held in two different places, one in a small town, while the other one is to be held in a famous tourism destination. Assuming all of the other factors are the same, and you have not been to either of these two places, which conference would you choose to go to?"

The key scripts of the second focus group’s outcomes are summarized below.

**Question 2 What comes into your mind when I mention cultural heritage and cultural attractions?**

Bahar and other participants all think museums, monuments, galleries and famous attractions are cultural attractions. Tom added that he believes the traditional cuisine of a place, a city itself, and local people’s real lifestyle are also a part of culture heritage. Yupeng said visiting natural landscapes and big festivals (e.g. Munich Beer Festival) are also cultural attractions.

**Question 3 Why do you travel to cultural tourist attractions? What are the reasons that motive you to travel to cultural tourism destinations?**

Bahar, Yupeng, Tom, Moataz and Isin all explained the main motivation for them to travel to cultural destinations is to gain happiness/satisfaction, to understand and learn more about the culture of those places. Fangqing supported their statements, as she mentioned that before she travels to cultural destinations, she already has a strong

\(^7\) The facilitator explained that the meaning of authentic is to describe objects, experience, and other things that are real, original, and not faked. ‘Authenticity’ is not a word only used to describe old and ancient things, but also can be used for newly emerged or emerging things.
willingness to learn more about those destinations/attractions. Moreover, Bahar stated that she also enjoys the feeling of being invisible at cultural destinations, because no one knows her there, and she can be totally relaxed and just enjoy herself.

**Question 4** Do you think cultural tourism has influenced you before? In other words, has a holiday ever changed your attitude to cultural tourism? Do you think it could? Why?

Yupeng believes that a cultural tourism experience has had an influence on him, but it also depends on the level of knowledge he had before he visited the cultural attractions. From previous experiences, he realized that the more he knows about the history and stories of the visited destinations, the more likely he would be to enjoy his visits. Therefore, if he visits a place which has a totally new kind of culture and history background, he would normally try to get a tour guide or an audio tour in order to learn more.

Tom is an architect who enjoys travelling to various places to observe buildings built at different periods by various architects for different purposes. However, he raised the issue that some of his friends treat travelling to places as if they are consuming a commodity. They do not gain insight into the attractions, as all they want is to have been to those famous places and enjoyed the time there. After their visits to the attractions, they would be able to engage with friends in conversations that they have been there before. Tom stated that he really disagrees with them, as he believes that gaining deep insight into an attraction can make one feel more satisfied and achieve more.

The other five participants (Fangqing, Bahar, Yupeng, Moataz and Isin) admitted the fact that knowing more about cultural attractions does help them to be more engaged
in conversations at social events, but they believe that the main reason changes their attitude to cultural tourism is because the extra knowledge/experiences gained through visiting cultural attractions make them feel more satisfied and appreciate more about the things associated with those visited places.

Question 5 After going to some places, if you really enjoyed the visits, will you go to re-visit those places or visit any places which have similar types of culture?

Yupeng said that if he enjoyed his visit to a place, he will travel to different destinations with similar types of culture, but would definitely not go back to the same place by himself again. Instead, he would recommend the place to his friends and family, and revisit this place with them. He believes that by doing this he can enjoy the same place in a different way. By doing that, he actually plays a knowledge transfer role by spreading the culture that he is interested in among the people he likes.

Moataz stated that although every place has its own culture, every time you go to the same place, you gain different kinds of cultural experiences. For example, during different festival periods and different seasons, the same place provides people with different feelings with different experiences.

Tom also mentioned about his two different experiences visiting St. Petersburg, Russia. Once was during the 'White Nights' festival period (i.e. polar daytime in June), and the other was during the Christmas holiday, when the whole city was covered in thick snow. He said he had two totally different experiences in the same city during these two different periods. The experience led him to love St. Petersburg more.
All participants mentioned that if they really enjoyed their visits to some cultural destinations, they will either re-visit those places or visit some attractions which have similar type of culture.

**Question 6 When you make decisions about visiting cultural destinations or cultural attractions, do you take authenticity into consideration?**

In the focus group, five out of the six participants confirmed that they like to seek authentic experiences.

Tom believes visiting museums at cultural destinations is a type of authentic experience, but the experience of standing in a queue full of foreign tourists for two hours in order to get into the National Roman Museum is not. He would prefer to use the two hours to walk around the city, passing by the shops and having a cup of coffee at an Italian coffee bar, watching people coming and going. Because he sees this sort of experience as authentic, it draws him closer to the real Italian culture.

Bahar then raised the point that fake objects can also create new culture. She used the city of Las Vegas as an example to illustrate her point. As everyone knows, the city of Las Vegas has lots of copied architecture from famous European attractions and Africa. Although she knows these buildings are not the original ones, seeing the reproductions and being around the city of Las Vegas made her feel a part of Las Vegas' culture more rather than anything else. In Bahar's eyes, putting all of those copied objects together creates a new type of culture, which uniquely belongs to Las Vegas. Therefore, she sees that architecture as real and original, as they are a part of the image of Las Vegas.

Isin mentioned that she likes going to original places which have a long history and where a particular type of culture is originally from. For example, the reason that she
chose to visit Disneyland in California rather than going to the other sites (such as those in Paris, Hong Kong or Tokyo) is because that is the first Disneyland, which is also from Disney's home country (i.e. USA). She believes that is the most original Disneyland in the world.

Yupeng also gave a very interesting reason about why and when he cares about seeing the original objects and having an authentic experience. He clearly indicated that when the place and type of culture are new to him, he does not mind whether the objects and experience are authentic, because he cannot really tell the difference. However, if he has already gained certain knowledge of that type of culture, he would definitely prefer to have an authentic experience.

Fangqing indicated that she also considers authenticity in the cultural tourism aspect, and shared her experience in Prague and Finland. She believes that visiting the real places and having authentic experiences can help her to learn about that type of culture quicker and more accurately. Therefore, it can help her to make a more correct judgement about whether she likes that type of culture, rather than just relying on reading travelling books or watching virtual tours. After touching the real things, tasting the original flavours and experiencing the authentic events, she feels that she is much more closely connected to those places.

Moataz stated that he does not understand why he likes original things, but that he really cares and likes original stuff. Going to the real places and seeing the original displays in galleries/museums makes him feel more satisfied than consuming fake objects. However, he also admitted that he had enjoyed visiting some inauthentic places before. For example, when he went to Milan, he realized that he could not see the real painting of the Last Supper, because visitors need to book well in advance. Instead, he bought a ticket to watch a demonstration of the Last Supper painting.
Although the painting was not original, he really enjoyed the demonstration process, and started to appreciate more of Leonardo da Vinci’s artworks. The main reason is because the demonstration involved the audience, and they were allowed to stand near a real table which looks the same as the one in the real painting. Moreover, the way it was demonstrated also helped the tourists to gain even more knowledge than seeing the real painting.

**Question 7 A question that tests the causal chain dimension of the cultural tourist taxonomy.**

All of the six participants confirmed that if they had spare money and time for travelling, they would definitely choose to go to the conference that would be held in the popular cultural destination. However, Isin raised the additional ‘travelling with whom’ issue. If she travels with her mother, a person who does not like visiting crowded touristic cities, then she would choose the one held in a small town.

### 5.2.4.3 Content Analysis of the Second Focus Group

To be consistent with the first focus group, the content analysis method is also used to analyse the transcripts of the second focus group. The coding and the results of the content analysis for Question 2 to Question 6 are summarized below:

<table>
<thead>
<tr>
<th>Q2: What comes into your mind when I mention cultural heritage and cultural attractions?</th>
<th>Museums &amp; Galleries</th>
<th>Monuments &amp; famous attractions</th>
<th>Cultural events/festivals</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 participants</td>
<td>6 participants</td>
<td>3 participants</td>
<td>Traditional cuisine and life style of a place, landscapes, architectures</td>
<td></td>
</tr>
</tbody>
</table>

In the second focus group, the result of Q2 is very similar to the result of Q3 in the first focus group. All six participants indicated that when they hear cultural heritage and cultural attractions, the most often appeared words in their minds are museums,
galleries, monuments and famous attractions. Apart from three participants who talked about cultural events and festivals, the other factors, such as traditional cuisine and life style of a place, landscapes and architectures were also mentioned as examples of cultural attractions. By taking both focus groups' results into account, for survey collection, the researcher should select two tourism attractions among the following categories: museums, galleries, monuments and famous/historical sites.

<table>
<thead>
<tr>
<th>Q3: Why do you travel to cultural tourist attractions? What are the reasons that motive you to travel to cultural tourism destinations?</th>
<th>Personal interest/ gaining satisfaction</th>
<th>To learn &amp; experience more</th>
<th>Being relaxed</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 participants</td>
<td>6 participants</td>
<td>1 participant</td>
<td></td>
</tr>
</tbody>
</table>

The results of Q3 have also been coded into three main categories. To compare with the results collected (for the same question) in the first focus group, the top two ranked motives are almost identical. All six participants stated 'to learn more and experience more' is their main motive to travel to cultural tourism destinations. Five of them also mentioned another important motive, that of 'personal interest'. They said lots of satisfaction can be gained from visiting those tourism attractions that they are interested in. Only one participant mentioned 'being relaxed' as a motive. Both focus groups' results prove that tourists do use cultural tourism activity to acquire knowledge and gain satisfaction.

<table>
<thead>
<tr>
<th>Q4: Do you think cultural tourism has influenced you before? In other words, has a holiday ever changed your attitude to cultural tourism? Do you think it could? Why?</th>
<th>Changed before</th>
<th>Never changed</th>
<th>Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 participants</td>
<td>None</td>
<td>Main reason: gaining more knowledge about cultural attractions makes visitors feel more satisfied and appreciate more about the things associated with those places.</td>
<td></td>
</tr>
</tbody>
</table>

All six participants once again indicated that they have been influenced by cultural tourism before, the main reason is cultural tourism experience helps them to gain
more knowledge about cultural attractions, which makes them feel more satisfied and appreciate more about the things associated with those places. Combing the two focus group results we can draw the conclusion that cultural tourism has an influence on tourists' preference and can change their attitudes to cultural attractions/objects. The feedback given by the twelve participants confirmed that it is necessary to have two categories (preference-forming and preference-following) in the vertical dimension of the new cultural tourist taxonomy.

<table>
<thead>
<tr>
<th>Q5: After going to some places, if you really enjoyed the visits, will you go to re-visit those places or visit any places which have similar types of culture?</th>
<th>Yes</th>
<th>No</th>
<th>Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 participants</td>
<td>None</td>
<td>For the same individual, every time visiting the same place, different kinds of cultural experience or knowledge can be gained.</td>
<td></td>
</tr>
</tbody>
</table>

All six participants indicated that if they really enjoyed visits to some places, they would either re-visit those places (five participants) or places with similar types of culture (one participant). The rationale behind this is that by visiting the same destination during different periods or with various friends, they believe different types of cultural experience and knowledge can be gained.

<table>
<thead>
<tr>
<th>Q6: When you make decisions about visiting cultural destinations or cultural attractions, do you take authenticity into consideration?</th>
<th>Yes</th>
<th>No</th>
<th>Types of authenticity</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 participants</td>
<td>1 participant</td>
<td>1. Object authenticity 2. Experiential authenticity</td>
<td></td>
</tr>
</tbody>
</table>

One of the most important key findings in the first focus group was that some participants confirmed that they are interested in whether the visited attractions are authentic. Hence, Question 6 was added in the second round. Five participants indicated when they make decisions about visiting cultural destinations or attractions, they always take authenticity into consideration. Although the ways of defining authenticity are various, they can be grouped into two types: object authenticity and
experiential authenticity. However, one participant mentioned that he normally does not take much notice of authenticity, when and only when he has accumulated certain knowledge of that type of culture, then it matters. The findings of Question 6 suggest that an additional dimension of authenticity should be added into the original version of the taxonomy.

5.2.4.4 Summary of the Second Focus Group Key Findings

In the second focus group, the participants’ discussion also confirmed some important key findings already raised in the first focus group, but also added new ideas to the results from the previous focus group.

Discussion about Adding the Authenticity Dimension to the Taxonomy

The most important key finding in the second focus group was that five out of the six participants confirmed that they do take authenticity into account when they plan travelling or visiting attractions. However, the way that tourists define ‘authenticity’ varies. From the examples given during the focus group, authenticity can be divided into two different types: object authenticity (seeing real and original objects, e.g. artworks, displays, buildings, etc.) and experiential authenticity (experiencing local people’s real life, having authentic/traditional food, etc.)

Apart from the common way of understanding authenticity from the original and real aspect, participants also discussed an interesting example, which is whether Las Vegas is an authentic tourist destination. One participant also indicated visiting an inauthentic place or seeing unoriginal artwork can also bring tourists satisfaction; it depends on how the inauthentic objects are demonstrated.

The findings of the second focus group provide evidence to show the importance of authenticity. By summarizing the different types of authenticity, an extra dimension
can be added to the cultural tourist taxonomy. Although five out of six participants emphasised that ‘authenticity’ plays a crucial role in their decision-making, the researcher believes there are also tourists who are not interested in authenticity, or do not mind whether the objects and experience are real/original. Then this type of person can be categorized as an inauthentic tourist. Therefore, the new extra dimension can be divided into the following categories, which include ‘inauthenticity, object authenticity and experiential authenticity’.

Table 5.1 Proposed Authenticity Dimension

| Preference- | Inauthenticity | Object Authenticity | Experiential Authenticity |
| forming     | √              | √                   | √                         |
| Preference- | √              | √                   | √                         |
| following   |                |                     |                           |

Adding the above extra dimension into the original version of the taxonomy, the following more comprehensive cultural tourist taxonomy is derived.

Figure 5.4 A More Comprehensive Cultural Tourist Taxonomy
5.3 Selection of Cultural Attractions

Before conducting the surveys, the first issue was choosing two appropriate cultural attractions as case studies. The cultural attraction selection was based on the following criteria:

1. The feedback gained from the participants in both focus groups;
2. For future economic impact and cultural impact evaluation purposes, both of the survey sites need to be popular cultural attractions in the same city;

As the researcher is based in Nottingham, after thorough research and selection among all of the cultural attractions in the city of Nottingham, Nottingham Contemporary (NC) and the Galleries of Justice (the GOJ) were chosen.

There are three good reasons to choose NC and the GOJ as tourist sites for conducting surveys.

First, the locations of these two galleries are very close to each other. Both of them are located on Weekday Cross in the Lace Market, which is the most historic area in Nottingham. Both places are very easy to reach by tram, bus, train, walking and cycling, and the distance between these two locations is less than 0.1 mile. This makes the evaluation of economic impact on the local area more feasible and the results among the two tourist sites can also be compared.

Second, both of the sites are amongst the most popular tourist sites in Nottingham and both of them can be researched easily by different kinds of transportation, so they attract both local visitors and tourist visitors from outside Nottingham. Moreover, there are sufficient signposts for visitors in the Nottingham city centre to guide the tourists to find both attractions.
The following pictures indicate NC and the GOJ are both equally promoted by Nottingham City Council using the tourist attraction signposts in the main locations in Nottingham city centre.

**Figure 5.5 Signposts for NC and the GOJ in Nottingham**

Thirdly, although both sites are very popular among tourists, they have very contrasting characteristics. The GOJ was founded in 1993 by the Lace Market Heritage Trust Galleries of Justice Museum in Nottingham, and was used as an old courthouse and county jail until 1986. In 1993, the Lace Market Heritage Trust founded it and turned it into a crime and punishment themed museum that opens to the public\(^8\). NC is one of the largest contemporary art centres in the UK, with a strong local sense of purpose\(^9\). NC only opened to the public in November 2009, and it plays an important role in helping people to learn about contemporary art through thinking.

\(^8\) www.galleriesofjustice.org.uk  
\(^9\) www.nottinghamcity.gov.uk
experiencing and imagining. NC exhibits approximately five different exhibitions each year, with exhibitions changing every 2-3 months\textsuperscript{10}. NC is located in the Lace Market and lace manufacturing plays an important part in Nottingham’s history. Therefore, NC’s architect imbued the building with the symbolic feature of Nottingham lace. According to Matthews (2008), the lace pattern on the NC building exterior was originally adapted from a small sample book of lace that was buried under where Marks and Spencer’s main shop is now. This proves that although NC is a built gallery for contemporary art, the way it was designed and built is very closely associated with the history of Nottingham.

The differences among those two neighbouring galleries enable the assessment of the differences between the economic and cultural impacts caused by them, and also make visible the different distributions among the various tourists' categories in the cultural tourist taxonomy.

5.4 Survey Design

5.4.1 Survey Design Strategy

As shown in Chapter 3, survey design is a crucial process to help the researcher to ensure reliable and valid data can be collected smoothly to serve the purpose of this study. Under the premise of ensuring the required data can be collected, it is important to make the questionnaire as attractive and easy to complete as possible.

Based on the condition of collecting the requested data for the research purpose, it is important to present the questions in a meaningful way to the participants. In other words, the questions should not only focus on the research issues, but also tackle the

\textsuperscript{10} www.nottinghamcontemporary.org
issues that people care about and make them believe that their answers will make a difference.

The two versions of questionnaires were designed in English for each survey location. One version was prepared for local visitors and another for tourist visitors. The draft of the survey questionnaire was devised, based on the newly developed cultural tourist taxonomy (i.e. consists of the causal chain model, preference changes model, McKercher and du Cros' cultural tourist typology, the results of the focus groups meetings, and also survey questionnaires used in similar tourism case studies (e.g. Fernandez-Young and Young (2008) and Young et al (2010)). Moreover, there are also additional questions tailored to evaluating the cultural impact caused by each attraction. The design of the cultural impact questions was mainly based on Matarasso's (1997) 50 socio-cultural impact list, which was reviewed in Chapter 2. In selecting a starting point for choosing cultural impact questions it was important to have a source independent of the researcher and with wide scope. Matarasso's list satisfies both these requirements. First of all, the researcher filtered the list by only selecting the cultural impact related criteria in the list. Then, those selected cultural impact criteria were filtered again with respect to the characteristic of each attraction. The researcher has only kept the cultural impact criteria, which can be applied to the chosen cultural attractions (i.e. NC and the GOJ). Finally, five cultural impact questions were tailored for NC case study, and six cultural impact questions were tailored for the GOJ case study. In the tourist version of questionnaire for each attraction, two causal-related questions were designed (i.e. Q8 quantifies the probability in causality; Q9 quantifies the probability that in the absence of the chosen attraction, the visitor would have visited Nottingham anyway).
All of the cultural impact questions and causal questions are presented by using this way of giving statements to the participants after their visits, making them feel they were more involved, and also making the questionnaire more enjoyable to complete. The majority of the questions in all four versions of the questionnaires were based on closed-ended questions, apart from the two questions in the tourist visitor versions asking tourist visitors where they intend to visit and what they intend to do or where they have visited, or done already.

Considerable effort was put into designing the context of the survey, ensuring all of the questions were phrased clearly and followed a logical sequence, making the questionnaire interesting and also as quick and easy as possible to complete.

Furthermore, in this study, local visitors and tourist visitors are defined as follows:

**Local visitors**: In this study, local visitors are defined as people who live in the city of Nottingham (having a postcode within NG9\(^{11}\)) and who also visited one of the two cultural attractions used in this research.

**Tourist visitors**: for the purpose of this research, tourist visitors are defined as people who are from the outside of the city of Nottingham (living further than NG9) and who visited the surveyed cultural attraction.

### 5.4.2 Piloting the Survey

In order to ensure the survey questions are presented in the most appropriate way, all versions of the questionnaires were piloted. The pilot test of the survey enables the

\(^{11}\) According to Google Maps, it takes approximately one hour to get to NG1 from an area further than NG9 by using public transportation. Moreover, the Nottingham local authority area only includes the areas within NG9; further areas have their own local authorities (http://www.nottinghamcity.gov.uk/index.aspx?articleid=397, 19/02/2010).
researcher to test which question needs clarification and which question should be deleted from the survey.

The four versions of questionnaires were tested in both galleries, and were extremely successful, and useful comments were collected allowing for further modifications of the questionnaires. During the piloting period, 21 questionnaires were collected at Nottingham Contemporary (i.e. 13 local visitor versions and 8 tourist visitor versions), and 16 questionnaires were collected at the GOJ (i.e. seven local visitor versions and nine tourist visitor versions).

In light of the useful comments collected during the pilot study, the following changes have been made.

1. The wording of Question 2 in both tourist versions of the questionnaires was changed from “Are you visiting Nottingham only today or are you staying for a few days?” to “Are you visiting Nottingham for the day or are you staying overnight?” The new version of the question is simpler and easier to understand.

2. The positions of the following two questions have been rearranged.

- **Do you intend to return to Nottingham in the future?**
- **Do you intend to return to Nottingham Contemporary/the Galleries of Justice in the future?**

In the pilot versions of the questionnaires, these two questions were asked before the series of cultural impact questions in the related versions of questionnaires. However, when visitors were answering those questions, they thought they had come to the end of the questionnaire. Therefore, the above
two questions have been moved to the section after all of the cultural impacts questions and before the ‘About You’ section.

3. In all four versions of the questionnaires, the following statement questions have been modified, in order to make the questions clearer and easier for the visitors to understand.

Old version: Nottingham Contemporary/the Galleries of Justice transformed the image of the Nottingham in my mind.

New Version: Nottingham Contemporary has enhanced the impression I have of the city of Nottingham. / The Galleries of Justice has changed the impression I have of the city of Nottingham.

4. All of the ‘0-10’ and ‘1-5’ scaled questions (i.e. causal questions, authenticity questions, and cultural impacts questions) have been changed from the question style (e.g. ‘how true is it to say that because you had heard of Nottingham Contemporary you were definitely going to visit Nottingham?’ Or ‘Do you think the Galleries of Justice has helped you to gain new insights into local history?’) to the statement format. For instances, on a scale of 0 to 10, 10 is ‘Strongly Agree’, 0 is ‘Strongly Disagree’, how strongly do you agree with the following statements? e.g. “Because I had heard of Nottingham Contemporary I was definitely going to visit Nottingham”. On a five-point Likert scale type of question, 1 is ‘Strongly Disagree’, 5 is ‘Strongly Agree’, e.g. after visiting the GOJ, to what extent do you agree with the following statement? “The Galleries of Justice helped me to gain new insights into local history.”
Using the statement format to ask those questions makes the respondents feel they are more involved and associated with the survey. It also makes it simpler for the respondents to give an accurate rank about how strongly they agree or disagree with the statement, when it is applied to them.

5.4.3 Final Structures of Questionnaires

All four versions of the survey were finalized for piloting at both cultural attractions. Both of them went really well, none of the participants had any problems with the questions in the questionnaire.

As for the GOJ, there are 25 questions in the tourist visitors' questionnaire, and only 14 questions in the local visitors' one. In terms of NC, 23 questions were created for the tourist visitors’ version of the questionnaire, but again, in total, there are only 13 questions in the local visitors’ version.

The structures of the final versions of the questionnaires are illustrated in the following tables:

<table>
<thead>
<tr>
<th>NC Local Visitors’ Questionnaire Description</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of times visited a contemporary art gallery before</td>
<td>Q1</td>
</tr>
<tr>
<td>Number of times visited NC before, and which exhibitions?</td>
<td>Q1-1 &amp; Q1-2</td>
</tr>
<tr>
<td>Attitude to object and experiential authenticity</td>
<td>Q2-Q3</td>
</tr>
<tr>
<td>Number of people in the group</td>
<td>Q4</td>
</tr>
<tr>
<td>Cultural impact related questions</td>
<td>Q5-Q9</td>
</tr>
<tr>
<td>Intention to return to NC</td>
<td>Q10</td>
</tr>
<tr>
<td>About you (socio-demographic information)</td>
<td>Q11-Q13</td>
</tr>
</tbody>
</table>
Table 5.3 Outline of NC Tourist Visitors’ Questionnaire

<table>
<thead>
<tr>
<th>NC Tourist Visitors’ Questionnaire Description</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main purpose for visit</td>
<td>Q1</td>
</tr>
<tr>
<td>Day visit or stay overnight</td>
<td>Q2</td>
</tr>
<tr>
<td>Programme for the visit at Nottingham</td>
<td>Q3-Q4</td>
</tr>
<tr>
<td>Number of times visited the city of Nottingham</td>
<td>Q5</td>
</tr>
<tr>
<td>Number of times visited a contemporary art gallery before</td>
<td>Q6</td>
</tr>
<tr>
<td>Number of times visited NC before, and which exhibitions/lectures?</td>
<td>Q6-1&amp;Q6-2</td>
</tr>
<tr>
<td>How was the trip to NC planned?</td>
<td>Q7</td>
</tr>
<tr>
<td>Causal chain related questions</td>
<td>Q8-Q9</td>
</tr>
<tr>
<td>Attitude to object and experiential authenticity</td>
<td>Q10-Q11</td>
</tr>
<tr>
<td>Number of people in the group</td>
<td>Q12</td>
</tr>
<tr>
<td>Total group spend in Nottingham</td>
<td>Q13</td>
</tr>
<tr>
<td>Cultural impact related questions</td>
<td>Q14-Q18</td>
</tr>
<tr>
<td>Intention to return to the city of Nottingham</td>
<td>Q19</td>
</tr>
<tr>
<td>Intention to return to NC</td>
<td>Q20</td>
</tr>
<tr>
<td>About you (socio-demographic information)</td>
<td>Q21-Q23</td>
</tr>
</tbody>
</table>

Table 5.4 Outline of the GOJ Local Visitors’ Questionnaire

<table>
<thead>
<tr>
<th>GOJ Local Visitors’ Questionnaire Description</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of times visited a crime and punishment themed exhibition and gallery before</td>
<td>Q1</td>
</tr>
<tr>
<td>Attitude to object and experiential authenticity</td>
<td>Q2-Q3</td>
</tr>
<tr>
<td>Number of people in the group</td>
<td>Q4</td>
</tr>
<tr>
<td>Cultural impact related questions</td>
<td>Q5-Q10</td>
</tr>
<tr>
<td>Intention to return to the GOJ</td>
<td>Q11</td>
</tr>
<tr>
<td>About you (socio-demographic information)</td>
<td>Q11-Q13</td>
</tr>
</tbody>
</table>

Table 5.5 Outline of the GOJ Tourist Visitors’ Questionnaire

<table>
<thead>
<tr>
<th>GOJ Tourist Visitors’ Questionnaire Description</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main purpose for visit</td>
<td>Q1</td>
</tr>
<tr>
<td>Day visit or stay overnight</td>
<td>Q2</td>
</tr>
<tr>
<td>Programme for the visit at Nottingham</td>
<td>Q3-Q4</td>
</tr>
<tr>
<td>Number of times visited the city of Nottingham</td>
<td>Q5</td>
</tr>
<tr>
<td>Number of times visited a crime and punishment themed gallery before</td>
<td>Q6</td>
</tr>
<tr>
<td>How was the trip to the GOJ planned?</td>
<td>Q7</td>
</tr>
<tr>
<td>Causal chain related questions</td>
<td>Q8-Q9</td>
</tr>
<tr>
<td>Attitude to object and experiential authenticity</td>
<td>Q10-Q11</td>
</tr>
<tr>
<td>Number of people in the group</td>
<td>Q12</td>
</tr>
<tr>
<td>Total group spend in Nottingham</td>
<td>Q13</td>
</tr>
<tr>
<td>Cultural impact related questions</td>
<td>Q14-Q19</td>
</tr>
<tr>
<td>Intention to return to the city of Nottingham</td>
<td>Q20</td>
</tr>
<tr>
<td>Intention to return to the GOJ</td>
<td>Q21</td>
</tr>
<tr>
<td>About you (socio-demographic information)</td>
<td>Q22-24</td>
</tr>
</tbody>
</table>
*The final versions of questionnaires are provided in Appendix II.

After the survey design, the survey planning and survey collection have been put into practice. The following section discusses them in detail.

5.5 Planning and Conducting the Survey at the Selected Attractions

5.5.1 Planning of the Survey Collection

Since people are bombarded with surveys everywhere (e.g. on the street, on the phone, in the shops, emails, post, etc.) in their daily life, this fact makes them become more resistant to filling in questionnaires and conducting interviews. In order to increase the recruitment and response rate of the survey, the researcher decided to get in touch with the marketing managers at both selected sites and obtain permission to interview visitors inside both galleries. After formal discussions with the marketing team managers at both sites, permission was issued by the relevant authorities to allow the interviews to be carried out on the sites.

Before starting the survey collection at both sites, the questionnaires were also checked by the marketing team managers at both galleries, who were satisfied with the questions in both versions of the questionnaires. One additional question was added to the questionnaire for each survey site at the request of the marketing managers.

For NC, a question about where the tourist lives was added to both versions of questionnaires to assist the management team at NC to find out how far the visitors travelled to come for the visits. At the GOJ, all of the visitors were asked whether they would like to give their email addresses and be added to their mailing list.

The researcher also discussed with staff from the marketing team at both galleries about the appropriate places on the sites that are suitable for interviewing visitors.
Once the places had been decided, a stand and chairs were put at the chosen location in the GOJ for interviewing purposes. In NC, there are benches on each floor and also near the entrance/exit, so the researcher could use them while she was conducting the survey. According to the researcher's previous experience, it is easier to approach participants if they realize they can sit down or make themselves feel comfortable while they are interviewed. Moreover, they would be more patient to complete the survey. Therefore, the collected result is more reliable and valid.

As noted before, the researcher had to battle against the visitors' natural reluctance to complete surveys. Therefore, the researcher also discussed with the staff from the marketing team at NC and the GOJ about offering a small incentive or prize to the respondent who completed the survey.

The NC offered giving a free cotton tote bag of the 'Star City' exhibition to every respondent who completed the survey at NC while the exhibition 'Uneven Geography' was on. Because of the limited budget, the GOJ was not able to provide any physical incentives. Instead, the marketing manager asked the last tour guide in the performance tour to encourage the visitors to participate in the survey collection, as a part of their activities in the performance tour.

5.5.2 Conducting the Survey

All of the questionnaires collected at Nottingham Contemporary and the GOJ were conducted inside the building. As noted in the survey design section, all of the versions of the questionnaires contain questions that assess visitors' preference change, in other words, the cultural impacts on each individual caused by the visited gallery after their visits. Therefore, the survey needs to be conducted with the participating visitors after their visits.
In collecting a survey, ideally a random sample of respondents is selected for study. However, in many large-scale samples of public opinion, convenience sampling is used since it is difficult or impossible to obtain a random sample.

5.5.2.1 Empirical Study - Case One: Nottingham Contemporary

The survey collection at the Nottingham Contemporary started on 18\textsuperscript{th} March 2010 and finished on 6\textsuperscript{th} June 2010. During this period, two exhibitions: Star City and Uneven Geography were showing at Nottingham Contemporary.

Two different versions of questionnaires were collected, designed for two different groups of visitors to Nottingham Contemporary. One version of the questionnaire was designed for the local visitors (i.e. people living in Nottingham). The other version of the questionnaire is designed for visitors who travelled from outside of Nottingham and visited Nottingham Contemporary. As mentioned before, both versions of the final questionnaires were pre-tested among a group of visitors to the gallery. After modifications, both versions of questionnaires were finalized. No problems occurred with respondents' understanding of the questionnaires during the data collection.

In NC, all of the participating local and tourist visitors were interviewed at the door on their way out, or around the gallery shop after their visits to the galleries. The interviewer gave out tote bags to interviewed visitors once they had completed their questionnaires as incentives.

The target for questionnaire collection was 400 questionnaires in total initially. However, during the permitted data collection period, 435 valid questionnaires were collected, which include 255 local visitor questionnaires and 180 tourist visitor questionnaires.
5.5.2.2. Empirical Study - Case Two: The Galleries of Justice

The survey collection at the GOJ started on 28\textsuperscript{th} April 2010, and finished on 20\textsuperscript{th} June 2010, lasting for nearly two months. The initial target was collecting 400 questionnaires overall. However, during the permitted data collection period, 380 valid questionnaires were collected eventually, which included 152 local visitor questionnaires and 228 tourist visitor questionnaires.

In the GOJ, visitors were interviewed in the Transportation section, the Gallery of Narrow Marsh, or after the performance tour on their way to the exit. The reason for conducting the interviews at the above places was because at those interview points the visitors had already completed their performance tours guided by the staff at the GOJ, but also there were tables and chairs at those interview points, which made it easier for the interviewer to approach tourists. All of the above survey points were right after their ‘marching activity’ in the prison yard, as some of the visitors wanted to sit down and have a rest. All of the tourists would also have finished their performance tours at those interviewing points, and so could provide valid answers to the questions in the questionnaires.

Once the whole survey collection was completed, four data entry spreadsheets were created for four different sets of data collected at NC and the GOJ. Each data set was manually entered into the tailored Excel spreadsheet for ordering and data analysis.

5.6 Summary

This chapter summarizes the whole process of how the surveys were designed and conducted for this study. The survey design partially depends on the key findings of the focus groups, so detailed discussion of how both focus groups were planned, organised and conducted were provided in this chapter. The key findings of the focus
groups and how the results assisted with modifying the cultural tourist taxonomy and survey designs were also given. Furthermore, a detailed explanation of how the entire survey process (i.e. choosing the survey sites, survey planning, piloting and finalizing the questionnaires, organising and conducting the surveys at NC and the GOJ) was completed has also been given in this chapter.
Chapter 6 Data Analysis and Discussion of Nottingham Contemporary Survey

Results

6.1 Introduction

This chapter presents the data analysis and discussion of the survey results for Nottingham Contemporary. It also includes the comparison results between two different versions of the questionnaires: local and tourist visitors. An overview of the data collected at NC is given in Table 6.1.

Table 6.1 NC Data Collection Breakdowns

<table>
<thead>
<tr>
<th>Types of visitors</th>
<th>Sample size</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Visitors (LV)</td>
<td>255</td>
<td>58.62%</td>
</tr>
<tr>
<td>Tourist Visitors (TV)</td>
<td>180</td>
<td>41.38%</td>
</tr>
<tr>
<td>Total</td>
<td>435</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

As indicated in Table 6.1, among the collected results at NC, almost 60% of respondents are LVs and just over 40% of them are tourist visitors. The collected sample indicates NC attracts more LVs than visitors from outside of Nottingham. The following analysis is in three sections: first of all, it presents the results of TVs’ questionnaires; then it discusses the LVs’ results collected at NC, and the section ends with a comparison of the survey results of tourist and local visitors at NC.

6.2 The Data Analysis of Tourist Visitors' Results at NC

6.2.1 Introduction

The results in Section 6.2 are separated into the following three sections: 6.2.2 Causal questions results and analysis; 6.2.3 Cultural impact questions results and analysis; 6.2.4 Other general questions results and analysis. At the end, an additional section

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12 In the following text, LV and TV are used to represent ‘local visitors’ and ‘tourist visitors’ respectively.
Section 6.2.5, which discusses some results of correlations between questions among the above three sections, is given.

6.2.2 Causal Questions

6.2.2.1 Primary Causal Questions

Of the four questions in this survey which relate to the causal chain leading to a visit to Nottingham, the core questions are the causal probability questions 8 and 9. For ease of reference, these questions were as follows:

Q8. “Because I had heard of NC I was definitely going to visit Nottingham.”
Q9. “If NC had been closed to the public, I would have come to Nottingham anyway.”

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
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<td></td>
</tr>
</tbody>
</table>

Strongly Disagree

Strongly Agree

Before the results of causal questions are given, some discussion of why a scale of 0-10 is used as the method to collect data for the probability calculation. Likert-type questionnaires are widely used in quantitative research. Dawes (2008) indicates more finely scaled Likert-methods do not increase its level of validity and reliability. Whereas Alwin (1997) found that the 11-point scale performed better than the 7-point scale in terms of reliability and validity. Clarke (2000) found the chances of having extreme responses could be reduced by increasing the number of scales from three to five. For a Likert-type questionnaire, the number of scales should be chosen to elicit different and genuine responses to the investigated questions. While assuring the validity and reliability of a questionnaire, the responses should also serve the purpose of data analysis.
In this study, the Likert-scale of 0-10 (i.e. 11-point, from strongly disagree to strongly agree) is taken as equivalent to probability. The rationales of using this method to evaluate the probability uplift are the following: A response of 0 means the respondent strongly disagrees with the given statement, and the rest of responses from 1 to 10 represent the probabilities from 10% to 100% in 10% increments respectively.

In terms of data collection and probability analysis, the 11-point scale is much more useful and accurate than alternatives, as the 11-point scale allows respondents to comfortably express their opinions on the given statement, without getting frustrated (when a scale is too difficult to answer) or de-motivated (when a scale is too simple).

In this study, the probability uplift of visiting the destination for each tourist is calculated separately based on the responses of the two causal probability questions (i.e. Q8 and Q9). Grigg (1980) and Dawes (2002) found that an 11-point scale produced more dispersion (i.e. coefficient of variation) in responses than a 5- or 7-point scale. Again, this finding assures the obtained probability uplift for each individual tourist is more accurate and valid.

The 11-point Likert-scaled questions have also been successfully adopted as the tool to estimate probabilities in previous studies (e.g. Anton et al, 2009; Young et al, 2010; Fernandez-Young & Young, 2008). Moreover, all of the questionnaires used in this study have been precisely pre-tested at the chosen tourist attractions. Therefore, the 11-point scale is the optimal number to collect responses for the causal probability questions.

Q8 quantifies the probability in causality linking a visit to NC and a visit to Nottingham. A response of 0 indicates that the tourist visitor was not at all influenced by NC, while a response of 10 means that with NC present, the tourist was definitely
going to visit Nottingham. In the terms defined in chapter 4, the response to Q8 (divided by 10) is the probability in causality k.

Q9 quantifies the probability that in the absence of NC, the visitor would have visited Nottingham anyway. A response of 0 means that, without NC, the respondent would definitely not have visited Nottingham. A response of 10 means that the visitor would definitely have visited Nottingham anyway. Following the terms in chapter 4, the response to Q9 (divided by 10) is 1-c, where c is the probability in causation. In other words, c is the probability that without NC, the visit would not have occurred.

The overall mean result of Q8 is 5.02, and the mean response for Q9 is 7.01, indicating with 70% certainty that the visits to Nottingham would have happened even without NC. In other words, aggregating fractional contributions of NC towards visits to Nottingham, 30% of such visits would not have happened, but for NC.

For some purposes, it is helpful to interpret the previous results in terms of the background probability (1-c) of a visit and the probability uplift (ck) created by the attraction. According to the results given by the responses for Q9, Figure 6.1 is constructed, showing the distribution of the background probability of a visit to Nottingham with respondents ranged in decreasing order of probability.
As can be seen in Figure 6.2, the two largest background probability categories were 100% (47.78%), who would have visited Nottingham anyway, and 0% (13.33%) whose sole reason for visiting Nottingham was NC. Between these two groups, there is a range of background probabilities, as the influence by NC on the tourists varies between these two extremes. For those visitors, NC has a partial uplift effect on the outcome of a tourist’s visit to Nottingham. In other words, visiting NC was only one
of the reasons that brought them to Nottingham, but other reasons also caused them to be there. The smaller the background probability, the more the presence of NC caused the visitors to be in Nottingham (i.e. the larger uplift in probability of visit due to NC).

Figure 6.3 NC-TV: Uplift in Probability of Visit

Figure 6.3 shows all the respondents’ probability uplifts of visit due to NC and this is the probability uplift of individuals in the sample ranged in the same order as the sample in Figure 6.1. The value of each individual’s uplift probability of visiting Nottingham because of NC is equal to the product of the values c and k.

On the right-hand side of Figure 6.3 is the set of the bars that reach 100 on the vertical axis, which indicates those visitors who came to Nottingham only because of NC. The heights of those bars are between 0 and 100, representing those visitors who came to Nottingham partially because of NC being located there. In other words, visiting NC is one of the reasons that caused their visits to the city of Nottingham. The uplift probability varies from individual to individual, since it depends on their responses to both Q8 and Q9.
The final probability is the probability that the visitor in question would visit Nottingham given NC is located in Nottingham. Although each visitor was in Nottingham, this does not imply that their visit to NC was inevitable, so some final probabilities are less than 1. The way of calculating the final probability is by adding the uplift in probability to the corresponding background probability. The final probabilities shown in Figure 6.4 has the individuals in the same order as in Figures 6.1 and 6.3.

The uplift probability in Figure 6.3 can be considered as the filling of the empty space in Figure 6.1; these uplift bars can be added on the right-hand side of the background probability in Figure 6.1, which gives us Figure 6.4. There is a gap in Figure 6.4 within bars, and that means that someone who was interviewed at NC responded to the effect that in the absence of NC they would not have come to Nottingham (i.e. their background probability was zero) and also that their probability uplift was zero. It follows that this person expressed a final probability of visit of zero, and yet he/she was in fact in Nottingham. This may be due to misunderstanding, or wrongly responding to the questions.
Although the calculated result of the probability of visiting NC does not follow the logic, this set of data was fully completed by the respondent, and the rest of data are still valid for other analysis. Moreover, the incorrect response rate is only 1 out of 180 (i.e. 0.6% error rate), which is significantly smaller than 5% (i.e. given 95% confidence level), therefore, this set of response was also included in the whole data analysis.

Table 6.2 NC-TV: The Aggregated Causal Analysis

<table>
<thead>
<tr>
<th>Tourist sample size</th>
<th>N=180</th>
</tr>
</thead>
<tbody>
<tr>
<td>Background probability</td>
<td>0.7006</td>
</tr>
<tr>
<td>Potential uplift</td>
<td>0.2994</td>
</tr>
<tr>
<td>Probability uplift</td>
<td>0.2295</td>
</tr>
<tr>
<td>Percentage of potential achieved</td>
<td>76.64%</td>
</tr>
<tr>
<td>Final probability</td>
<td>0.9301</td>
</tr>
</tbody>
</table>

Table 6.2 summarizes the comprehensive results of causal analysis from Q8 and Q9. Because the aggregated background probability (1-c) is high (i.e. 0.7006), the maximum uplift that can be attained by NC is 0.2994. As shown in Table 6.3, NC has reached approximately three-quarters of the potential uplift, which means that more visitors could possibly be attracted from outside of Nottingham to visit NC. By adding the probability uplift 0.2295 to the background probability 0.7006, we get a final probability of 0.9301.

Table 6.3 summarizes the main causal results and average values of Q8 and Q9 for three different tourist groups, separated according to the following criteria:

1. Group 1: Tourists who would definitely have come to Nottingham, even without NC having been in Nottingham.
2. Group 2: Tourists who visited Nottingham, partially because NC is located there, but there are also other reason/reasons that brought them to Nottingham.
3. Group 3: Tourists who definitely would not have come to Nottingham at all if NC had not happened to be in Nottingham.

Table 6.3 NC-TV: Summary of Causal Analysis Results for 3 Tourist Groups

<table>
<thead>
<tr>
<th>NC-TV</th>
<th>Sample size</th>
<th>%</th>
<th>Background probability</th>
<th>Probability uplift</th>
<th>Final probability</th>
<th>Mean Q8 ((k/10))</th>
<th>Mean Q9 ((1-c/10))</th>
<th>Average No. of visitors per group</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>180</td>
<td>100%</td>
<td>0.7006</td>
<td>0.2295</td>
<td>0.9301</td>
<td>5.02</td>
<td>7.01</td>
<td>3.69</td>
</tr>
<tr>
<td>Group 1</td>
<td>86</td>
<td>48%</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>3.12</td>
<td>10.00</td>
<td>2.62</td>
</tr>
<tr>
<td>Group 2</td>
<td>70</td>
<td>39%</td>
<td>0.5729</td>
<td>0.2944</td>
<td>0.8673</td>
<td>6.13</td>
<td>5.73</td>
<td>4.44</td>
</tr>
<tr>
<td>Group 3</td>
<td>24</td>
<td>13%</td>
<td>0</td>
<td>0.8625</td>
<td>0.8625</td>
<td>8.63</td>
<td>0.00</td>
<td>5.33</td>
</tr>
</tbody>
</table>

Table 6.3 shows more than half of the surveyed tourists came to Nottingham fully or partially because NC was located there. 13% of them definitely would not have come to Nottingham, without NC being in Nottingham, and the aggregated probability uplift for visitors in Group 3 is 0.8625, which is nearly four times the overall probability uplift 0.2295. Although the Group 2 visitors have a much higher background probability (0.5729) than the Group 3 (0), by adding the probability uplift values to them, it gives two final probabilities which differ by less than 0.5% (0.8673 vs. 0.8625).

Among the causal questions, there are some that are closely linked. In this section, correlations \(^\text{13}\) between the related questions are discussed. Arithmetically, the correlation between the responses to Q8 and Q9 is equal to the correlation between \(k\) and \(c\), but opposite in sign.

Table 6.4 NC-TV: Correlation Coefficients between Q8 & Q9/k & c

<table>
<thead>
<tr>
<th></th>
<th>Q8 &amp; Q9</th>
<th>k &amp; c</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-0.5639</td>
<td>0.5639</td>
</tr>
</tbody>
</table>

\(^\text{13}\) The equation for the correlation coefficient is the following:

\[
\text{Correl}(X, Y) = \frac{\sum(x-x)^{(y-y)}}{\sqrt{\sum(x-x)^2 \sum(y-y)^2}}
\]
The correlation coefficient between Q8 and Q9 (-0.5639) means that they have a strong negative relationship. A test on the null hypothesis that the correlation is zero uses a t statistic. In this case, the t distribution is 178 degrees of freedom (180-2) which gives a critical t value of 1.9734 for a two-tailed test at the 5% level. The test statistic is -9.1110, so the null hypothesis can be rejected and the negative correlation is significant.

Because Q8 and Q9 are proportional to k and l-c respectively, the absolute value of the correlation (0.5639) will be equal, but with a negative sign. This indicates a negative correlation when the correlation between Q8 and Q9 is compared with that of c and k.

Figure 6.5 NC-TV: Plots of Responses to Q8 and Q9

In Figure 6.5, the responses given to the survey are shown, with the diameter of point being proportional to the number of respondents given that combination of answers to Q8 and Q9. The scattered plots of Q8 and Q9 also give reference that shows the wide choices of the range for the answers of both questions, but the most popular three
combinations of responses to Q8 and Q9 are (0, 10), (5, 10) and (10, 0). The
distribution of the scattered plots also indicates the respondents were discriminating
Q8 and Q9.

6.2.2.2 Tourist Stereotypes and Causality and Causation Questions

Q8 and Q9 are causality and causation questions, respectively, that test whether NC
caused the interviewed tourists to come to Nottingham. Q8 represents the value of ‘k’,
and Q9 is the value of ‘1-c’. ‘k’ is the probability of visiting Nottingham given NC is
in Nottingham, while ‘c’ means the probability of not visiting Nottingham if NC were
not present in Nottingham.

In terms of the relationship between the causality (Q8, k) and causation questions (Q9,
1-c), four possible stereotypes can be categorized according to the various values and
combinations of them. Each stereotype is an extreme example. In other words,
although respondents gave fractional values for k and c, our stereotypes highlight the
distinctions by taking the values of k and c to be either 0 or 1.

Before listing the four stereotypes, the following terms need to be explained.

1. Attracted tourists: attracted by the cultural attraction, and the attraction is NC
   in this case study.

2. Un-attracted tourists: not attracted by the cultural attraction.

3. Captive tourists: tourists who have decided definitely to come to Nottingham.

4. Non-captive tourists: not attracted by Nottingham at all.

All of the tourists have been classified into the following four stereotypes:

> Stereotype one: an attracted captive (when k=1, c=0)

‘k=1’ means with NC in Nottingham, they would visit Nottingham. When ‘c=0’, it
means their sole reason for visiting Nottingham would be to visit NC; this however, is
an extreme case, as this individual has already been attracted to the city, would come to Nottingham anyway.

An attracted captive tourist is one who was going to come to Nottingham, when he/she heard of NC, but the tourist would definitely be in Nottingham anyway. For example, someone who lives outside of Nottingham, nearby, and who is very interested in contemporary art, so he/she definitely is going to visit Nottingham. However, this individual has decided to go to Nottingham on that day anyway. For instance, maybe he/she always goes to Nottingham to do shopping.

➤ Stereotype two: an attracted non-captive (when k=1, c=1)

As explained earlier, ‘k=1’ means because NC is in Nottingham, those people were going to visit Nottingham. ‘c=1’ is saying, but for NC, the individual would not have come to Nottingham. This type of tourist definitely would not come to Nottingham if NC is not in Nottingham. In other word, without NC, this type of tourist would definitely not come to Nottingham.

➤ Stereotype three: an un-attracted captive (when k=0, c=0)

These tourists were not attracted by NC, but they were in the city of Nottingham and also visited NC. However, NC had not influenced their decisions to visit Nottingham. For example, this might be someone who lives near Nottingham, and always comes to Nottingham for shopping. They happen to decide to visit NC while they are in Nottingham, but NC plays no part in bringing them to Nottingham city.

➤ Stereotype four: an un-attracted non-captive (when k=0, c=1)

These tourists are those who were neither going to come to the city of Nottingham on that day nor were attracted by NC. Presumably, they were not there. This type of
visitor represents someone who had no chance of being in Nottingham, but it happened they had been to NC.

Figure 6.6 Four Tourist Stereotypes

Figure 6.6 presents four stereotypes of tourist according to their c and k values. After introducing the meanings of the four different stereotypes, the correlations between c and k are analyzed correspondingly.

- An attracted captive is when k equals 1 and c equals 0. In terms of the correlation between k and c, the stereotype 1 tourists make a negative correlation contribution. An extra person of this type would reduce the correlation between k and c.

- An attracted non-captive is when both of k and c equal 1. An extra tourist of this type would make a positive contribution to the correlation between k and c.

- An un-attracted captive is when both k and c equal 0. This type of tourist gives a positive contribution to the correlation between k and c.
An un-attracted non-captive is when \( k=0 \) and \( c=1 \). An extra tourist of this type makes a negative contribution to the correlation between \( k \) and \( c \).

If an attraction attracts lots of stereotype 1 (attracted captives) and stereotype 4 (un-attracted non-captives), the correlation of \( c \) and \( k \) tends to be negative. Moreover, if an attraction has lots of stereotype 2 (attracted non-captives) and stereotype 3 (un-attracted captives), then the correlation of \( c \) and \( k \) is more likely to be positive.

The whole purpose of the discussion above is to clarify that the correlation between \( c \) and \( k \) could be either positive or negative. Whether the correlation tends to be positive or negative depends on the relative number of people in each of these four stereotypes.

The above discussion tells us that the above four stereotypes are plausible, but finding out the economic impact caused by the attractions is one of main objectives in this research, therefore, it is crucial to know which stereotype contributes to the probability uplift \( (ck) \) caused by NC. The probability uplift of each type of tourist is discussed in detail in Table 6.5, which summarizes the contributions made by each stereotype of tourist in terms of the probability uplift.

### Table 6.5 Tourists Stereotypes and Contribution to the Probability Uplift

<table>
<thead>
<tr>
<th>Stereotypes</th>
<th>Values of ( k ) &amp; ( c )</th>
<th>Contribution to the correlation of ( c ) &amp; ( k )</th>
<th>Contribution to the probability uplift ( =ck )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 1: An attracted captive</td>
<td>( k=1, c=0 )</td>
<td>Negative</td>
<td>( ck=0, \text{No} )</td>
</tr>
<tr>
<td>Type 2: An attracted non-captive</td>
<td>( k=1, c=1 )</td>
<td>Positive</td>
<td>( ck=1, \text{Yes} )</td>
</tr>
<tr>
<td>Type 3: An un-attracted captive</td>
<td>( k=0, c=0 )</td>
<td>Positive</td>
<td>( ck=0, \text{No} )</td>
</tr>
<tr>
<td>Type 4: An un-attracted non-captive</td>
<td>( k=0, c=1 )</td>
<td>Negative</td>
<td>( ck=0, \text{No} )</td>
</tr>
</tbody>
</table>

As indicated in Table 6.5, only stereotype 2 tourists make a positive contribution to the probability uplift. This means the probability uplift is purely caused by the tourists.
who are attracted non-captives, who came to the city of Nottingham, only because they were attracted by NC. For NC itself, it does not matter which stereotype of tourist they get, because NC admission is free of charge. Instead, NC is only interested in the number of visits that the gallery has, not which type of tourist.

For Nottingham City Council (NCC), attracting more stereotype 2 tourists is their priority. Although stereotype 1 tourists were attracted by NC, they had an additional reason to visit Nottingham and also visited NC. This type was 'guaranteed' to visit Nottingham, so NCC does not need to work to attract them to the city. This means pure stereotype 1 tourists have not contributed to the probability uplift of NC.

The significant positive correlation between c and k proves that a significant fraction of the tourist samples collected at NC were stereotype 2 and 3 tourists, which are attracted non-captives and non-attracted captives. Generally speaking, people who came to Nottingham are either people who were going to come to Nottingham purely because of NC, or people who were going to come to Nottingham anyway and just decided to drop in to NC for a visit.

6.2.2.3 Secondary Causal Questions

This section discusses the results of the six secondary causal questions. First of all, the main purpose of their visits to Nottingham is discussed.

Q1. What is the main purpose of your visit to Nottingham?

- Holiday  - Business  - Visit friends and relatives (VFR)  - Study
- Other, please specify ______  - Visiting NC
As shown in Figure 6.7, tourists who came to Nottingham because of visiting friends and relatives accounted for approximately 35% of the whole tourist sample, with VFR the top-ranked purpose for visiting Nottingham. The second most important reason that brought tourists to Nottingham was a visit to NC, which makes up nearly a quarter of the surveyed tourists. This indicates that as a newly built contemporary art gallery, NC has already played a role in bringing tourists to Nottingham. 15% of the interviewed tourists came to Nottingham to enjoy their holidays, and it is followed by the groups of visitors, whose main purposes are ‘other’, ‘study’ and ‘business’. Tourists indicated other reasons include going shopping, watching football matches, going to music concerts, visiting other tourist attractions, having interviews, going to theatres, etc.

Nearly 60% of the tourist respondents were in Nottingham either mainly because of VFR or to visit NC. However, this does not provide information regarding the level of influence caused by these resources. This is what the causal probability questions, Q8 and Q9, do with respect to NC as a factor causing tourist visits to Nottingham.
Q7. How did you plan your trip to NC?

- Decided before arriving in the city
- Decided after arriving in the city
- This is an unplanned visit
- Other, please specify: ________________

Question 7 investigates when and how visitors planned their trips to NC. Figure 6.8 shows the results of how TVs planned their trips to NC, and have been categorized into four different types.

![Figure 6.8 NC-TV: Q7 How Ts Planned Trips to NC](image)

Around 55% of interviewed TVs decided to visit NC before they arrived in Nottingham. Almost a quarter of them planned their visits to NC after they had arrived in Nottingham. Slightly less than 20% of tourists’ visits to NC were unplanned, with some tourists serendipitously discovering NC when wandering around the city centre or Lace Market district to experience Nottingham’s atmosphere. Only less than 2% of the visitors coming to NC used other planning methods (e.g. suggested by a friend, or read about NC in press).

The relationships between Q7 and two primary causal questions are analyzed below.
Results in Table 6.9 suggest Q7 and Q8 have a negative correlation, and Q7 and Q9 have a positive correlation. Again, there are 178 degrees of freedom giving a critical t value of 1.9734 for a two-tailed test at the 5% level. The test statistics are -8.7306 (for Q7 and Q8) and 5.9354 (for Q7 and Q9). There is strong evidence of significance for both correlations.

Moreover, the negative correlation of Q7 and Q8 means when the tourist visitors had heard of NC, they were more willing to visit Nottingham, and more likely to plan their trips to NC in advance. The positive correlation between Q7 and Q9 can be interpreted as indicating that the more likely the tourist visitors would still come to Nottingham, even if NC was closed to the public, the less likely the tourist visitors would plan their visits to NC in advance. Again, both results were plausible.

Figure 6.9 NC-TV: Means of Q8 by Categories in Q7

Q8 asks respondents whether because they had heard of NC, they would definitely visit Nottingham. In other words, how true it is to say that because of NC, they came...
to Nottingham. The overall average result of Q8 is 5.02, which is very close to the neutral choice 5. However, the question of how tourists planned their trips distinguishes the tourists' choices in terms of Q8 (probability in causality). Figure 6.9 shows the mean of Q8 for the tourists who planned beforehand to visit NC is 6.97, but the average results of Q8 for ‘planned after’ and ‘unplanned’ tourists are both much smaller than the ‘planned before’ visitors, 2.64 and 2.59 respectively. The answer for ‘other’ tourists is only 0.33. The results indicate that NC plays a much more important role in bringing the ‘planned before’ type of tourists to the city of Nottingham, than to all other types. Although the ‘planned after’ and ‘unplanned’ tourists did not plan their trips to NC before arriving in Nottingham, they nevertheless had a weak intention of visiting NC. In contrast with the above three types of tourists, NC had hardly any influence on ‘other’ tourists, in terms of attracting them to Nottingham.

According to the results in Figure 6.10, even if NC was closed to the public on the day, the ‘other’ tourists would still come to Nottingham. Both ‘planned after’ and ‘unplanned’ tourists would more likely still come to Nottingham (with probabilities of 89.5% and 93.7% respectively). However, there is only a 54.4% chance the ‘planned
before' tourists would still visit Nottingham, even if NC was closed to the public on that day. The overall background probability of visiting Nottingham for all the sample is 70.7%.

From the above results, the following summary can be deduced. For the 101 ‘planned before’ tourists, visiting NC was either the only reason or one of the main reasons for them to visit Nottingham. For the tourists who chose ‘0’ as their answers, NC plays role ‘A’ in the causal chain, and only the top route exists in the causal chain for this situation. If tourists chose ‘1-5’ as their answers, NC still plays role ‘A’ in the causal chain, but routes A and B both exist in the causal chain, which means while NC was one of the important reasons that attracted those tourists to visit Nottingham, there were other reasons behind their visits.

6.2.3 Culture Related Questions

6.2.3.1 Primary Cultural Impact Questions

Of the nine questions in the survey which relate to the cultural impact caused by visiting NC, the core questions are the five cultural impact questions (i.e. from Q14 to Q18), which were tailored for NC to evaluate the cultural impact. For ease of reference, these questions were as follows.

*After visiting NC, to what extent do you agree with the following statements?

Q14. “NC stimulated my interest and improved my perceptions of contemporary art.”

Q15. “NC helped me to gain new insights into contemporary art.”

Q16. “NC has helped broaden my knowledge of the local cultural scene.”

Q17. “NC has enhanced the impression I have of the city of Nottingham.”

Q18. “My visit to NC has made me want to learn more about contemporary art.”
1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree

All of the above five questions used the five-point Likert scale type of questions, in which respondents are given five choices for each question, ranging from ‘strongly disagree (1) to ‘strongly agree’ (5). For each question, the results are presented using vertical bar charts to show each individual’s choice and the clusters of respondents for each question.

Figure 6.11 provides the distribution of responses for Q14 with respondents ranged in decreasing order, from ‘strongly agree’ (5) to ‘strongly disagree’ (1). The most common response to Q14 is ‘agree’, with almost three-quarters of the respondents either agreeing or strongly agreeing that NC stimulated their interests and improved
their perceptions of contemporary art. Approximately 8% of tourists indicated that they were not influenced by NC at all in this respect.

Q15 tests whether TVs have gained any new insights into contemporary art after their visits. As shown in Figure 6.12, the distribution of the results is similar to the results of Q14. More than 70% of the respondents felt that they gained new insights into contemporary art after their visits to NC. Less than 20% of the respondents were not sure about the statement, and around 11% of them either disagree or strongly disagree with it.
Q16 tests whether NC has helped tourists broaden their knowledge of the local cultural scene. The distribution amongst the five choices for Q16 is quite different from the previous two questions. As shown in Figure 6.13, more than 60% of the bars are either at or under the neutral level 3, with 38% of the respondents either agreeing or strongly agreeing that NC had broadened their knowledge of the local cultural scene. However, just over 30% of respondents have no opinion about Q16 after their visits to NC.

The reason for the variation in responses to Q16 may be because the themes of the two exhibitions (Star City and Uneven Geographies), were not closely associated with Nottingham’s culture. The artworks exhibited at NC did not show much knowledge of the culture in Nottingham. Some may argue that the building itself is embroidered using a lace pattern, and that was what Nottingham was famous for during the
industrial revolution. Alternatively, the fact of that there are such exhibitions in Nottingham may have said something to people about the Nottingham cultural scene.

**Figure 6.14 NC-TV: Q17 Distribution**

<table>
<thead>
<tr>
<th>Q17</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample size</td>
<td>53</td>
<td>82</td>
<td>26</td>
<td>14</td>
<td>5</td>
<td>180</td>
</tr>
<tr>
<td>%</td>
<td>29.44%</td>
<td>45.56%</td>
<td>14.44%</td>
<td>7.78%</td>
<td>2.78%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Q17 asks the tourists' opinion about whether NC has enhanced the impression that they have of Nottingham. Figure 6.14 indicates three out of four of the respondents think that NC has enhanced their impressions of Nottingham. Nevertheless, just over 10% of participating tourists did not believe NC had helped them to enhance their impression of Nottingham.
Figure 6.15 NC-TV: Q18 Distribution

<table>
<thead>
<tr>
<th>Q18</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample size</td>
<td>36</td>
<td>71</td>
<td>47</td>
<td>23</td>
<td>3</td>
<td>180</td>
</tr>
<tr>
<td>%</td>
<td>20.00%</td>
<td>39.44%</td>
<td>26.11%</td>
<td>12.78%</td>
<td>1.67%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Q18 asks the tourists whether their visits to NC made them want to learn more about contemporary art. As shown in Figure 6.15, almost 60% of the TVs stated their visits to NC made them want to learn more about contemporary art. In contrast with the positive responses, only 15% of them had no intention of learning more about contemporary art in the future. However, just over 25% of tourists could not decide whether they had intentions to learn more about contemporary art after their visits to NC.

During the data collection period, some tourists clarified that although they have chosen either 'disagree' or 'strongly disagree' as their answers to Q18, that does not mean they did not like contemporary art. Some of them had already established their interests in contemporary art from their previous experiences, and this was the main reason that attracted them to visit NC. The reason that they disagreed with the statement is that this visit to NC had not made them want to learn more about
contemporary art. A part of the reason is that they are already interested in contemporary art, and have a certain amount of knowledge about contemporary art. This is the main reason that the questions were designed this way. The objective of collecting the answers for those cultural impact questions is to evaluate the cultural impact caused by NC, but not other related galleries or exhibitions. Tourists who already liked contemporary art were preference-following rather than preference-forming.

**Figure 6.16 NC-TV: Means of Cultural Impact Questions (Q14-Q18)**

![Mean values of cultural impact questions](image)

Figure 6.16 shows the means of the cultural impact questions from Q14 to Q18. Although all of the tourists were given choices between 1 and 5 for all five cultural impact questions, the average results are all between 3 to 4. Apart from the average of Q16 (3.09), which is very close to the neutral choice 3, the rest of the averages actually lie between 3.60 and 4.

In order to prove whether the averages of cultural impact questions are significantly different from the mean value 3, separated t-tests were performed, the results of which are shown below in Table 6.7.
Apart from the t-test result of Q16, all the other t-test values are larger than the critical value (2.6036), which means all null hypotheses of the other questions can be rejected. Except for Q16, the rest of the cultural impact questions are significantly different from the neutral value, 3.

The cultural impact questions (excluding Q16) show that NC plays an important role in influencing the cultural impact among tourists. More specifically, the following conclusions can be drawn: NC (1) stimulated TVs’ interest and improved their perceptions of contemporary art; (2) helped tourists to gain new insights into contemporary art; (3) enhanced the impression the TVs have of the city of Nottingham; (4) made tourists want to learn more about contemporary art. Further discussions about the cultural impact will be given in Chapter 10.

### 6.2.3.2 Secondary Culture-related Questions

The following culture-related questions collect information about the number of times that tourists have been to Nottingham, the number of times that they have visited a contemporary art gallery and the number of times they have visited NC before (along with and which exhibitions/lectures they have been to at NC).
Figure 6.17 NC-TV: Q5 Number of Times been to Nottingham Before

Figure 6.17 shows that nearly three-quarters of the TVs at NC have been to Nottingham more than four times, meaning the majority of tourists who visited NC are regular visitors to Nottingham. Only 8% of tourists were on their first visit to Nottingham.

Figure 6.18 NC-TV: Q6 Number of Times Visited a Contemporary Art Gallery Before

Figure 6.18 indicates nearly 60% of the participating tourists had been to contemporary art galleries more than four times before they visited NC. In contrast, around 15% of the interviewed tourists had never been to contemporary art gallery
before. This means the majority of TVs (i.e. approximately 65%, including tourists who had been to contemporary art galleries more than three times before), who visited NC like visiting contemporary art galleries.

In the second round of survey collection at NC, the two questions were added to the questionnaires. The reason for including the following two questions in the second round of survey collection is to assist with finding out the return rate of visitors, and which exhibition is more popular. The second round survey collection was conducted during the Uneven Geographies exhibition, the third exhibition that NC had held since it opened (the two previous exhibitions were David Hockney and Star City). The collected sample size for the following two questions is 98.

**Q6-1 Prior to today, how many times have you been to Nottingham Contemporary?**
- Never
- 1
- 2
- 3
- 4+

**Q6-2 Prior to today, which exhibition(s) have you seen at Nottingham Contemporary?**
- David Hockney
- Star City
- Lectures & Talks
- Others

**Figure 6.19 NC-TV: Q6-1 Number of Times Visited NC Before**
As shown in Figure 6.19, NC is a new place to around 62% of the TVs, but 5% of the tourists had visited NC more than four times before they were interviewed. For this 5% of tourists, apart from the exhibitions, they either visited NC for lectures and themed talks, or came to the same exhibition(s) more than once. The above results suggest that 5% of people have already established their preferences on contemporary art, and are therefore preference-following tourists. However, in order to find out which specific type of cultural tourist they belong to during that visit, the results of the causal chain questions also need to be taken into consideration. For tourists who had been to NC two and three times, each of them makes up 9%. By summing the number of tourists that have visited NC once or more than once before, we find the revisit rate is 38%.

The respondents were asked about which exhibition(s) or lectures/talks they had been to prior to the interview, in order to find out which exhibitions, or lectures were more popular among the returning visitors.

Figure 6.20 NC-TV: Q6-2 Exhibitions and Lectures Tourists Visited

As shown in Figure 6.20, David Hockney and the Star City exhibitions were nearly equally popular among re-visitedors. They accounted for 47% and 46% respectively,
which make up 93% of the total sample. This means the main reason that NC has attracted tourists to revisit the attraction is because of the main exhibitions rather than lectures, talks and others.

Main Purposes of Visit vs. Cultural Impact Questions

The following tables summarize the results of the t-tests between the main purposes of the visitors for each cultural impact question, in order to find out whether there are any significant differences between cultural impacts according to the main purpose of the visit. Each table shows the rankings of the most culturally influenced tourist groups according to the main purpose of visit.

In the following tables (Table 6.8-Table 6.12), where there is significance in the difference, the significance level (10% or 5%) is indicated and the type of test. Y indicates a significant difference using both types of test at the 5% level. Type 2 tests assume equal variances in the sample and Type 3 tests allow unequal variances. The results are as follows.

Table 6.8 NC-TV: Q14 vs. Q1

<table>
<thead>
<tr>
<th>Ranks</th>
<th>Q14 vs. Q1</th>
<th>Holiday</th>
<th>Visit NC</th>
<th>VFR</th>
<th>Other</th>
<th>Business</th>
<th>Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Holiday</td>
<td>N</td>
<td>(Y) 10%, 3</td>
<td>N</td>
<td>N</td>
<td>(Y) 10%, 3</td>
<td>(Y) 10%, 2 &amp; 3</td>
</tr>
<tr>
<td>2</td>
<td>Visit NC</td>
<td>N</td>
<td>N</td>
<td>(Y) 10%, 3</td>
<td>N</td>
<td>(Y) 5%, 2; 10%, 2 &amp; 3</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>VFR</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Other</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Business</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Study</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td></td>
</tr>
</tbody>
</table>

Q14 tests whether NC has stimulated tourists' interest and improved their perceptions of contemporary art. At the 5% level, the only significant difference for Q14 is between Visit NC and Study, with Visit NC having the bigger impact.
Table 6.9 NC-TV: Q15 vs. Q1

<table>
<thead>
<tr>
<th>Ranks</th>
<th>Q15 vs. Q1</th>
<th>Visit NC</th>
<th>Holiday</th>
<th>VFR</th>
<th>Other</th>
<th>Business</th>
<th>Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Visit NC</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>(Y)5%,2;10%,2&amp;3</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Holiday</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>VFR</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>(Y)10%,3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Other</td>
<td>N</td>
<td></td>
<td></td>
<td>(Y)10%,3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Business</td>
<td></td>
<td></td>
<td></td>
<td>N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Study</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q15 is about gaining new insights into contemporary art. Table 6.9 indicates that at the 5% level, Visit NC has a significantly greater impact (for Q15) than VFR, Other, Business and Study. Study had a smaller impact than Visit NC, Holiday, VFR and Other.

Table 6.10 NC-TV: Q16 vs. Q1

<table>
<thead>
<tr>
<th>Ranks</th>
<th>Q16 vs. Q1</th>
<th>VFR</th>
<th>Visit NC</th>
<th>Holiday</th>
<th>Other</th>
<th>Study</th>
<th>Business</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>VFR</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Visit NC</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Holiday</td>
<td>N</td>
<td></td>
<td>(Y), 10%,2&amp;3</td>
<td>(Y), 5%,3;10%,3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Other</td>
<td>N</td>
<td></td>
<td>(Y), 5%,3;10%,3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Study</td>
<td></td>
<td></td>
<td></td>
<td>Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Business</td>
<td></td>
<td></td>
<td></td>
<td>N</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q16 refers to how NC helped broaden tourists’ knowledge of the local cultural scene. Table 6.10 shows that at the 5% level, Business tourists had a significantly smaller impact (for Q16) than tourists who came for VFR, Visit NC, Holiday, and Other purposes. Study had a smaller impact than VFR and Visit NC at the 5% level.
Q17 tests whether NC has enhanced the impression that tourists have of the city of Nottingham. As can be seen in Table 6.11, at the 5% level, tourists who came for holiday purposes have gained a significantly greater impact (for Q17) than tourists who came for VFR, Visit NC, Other and Study. Visitors who were in Nottingham for study purposes had a significantly smaller impact than Holiday, VFR, and Visit NC tourists.

Table 6.12 NC-TV: Q18 vs. Q1

<table>
<thead>
<tr>
<th>Ranks</th>
<th>Q18 vs.Q1</th>
<th>Study</th>
<th>Holiday</th>
<th>Visit NC</th>
<th>VFR</th>
<th>Business</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Study</td>
<td>Y</td>
<td>N</td>
<td>(Y), 10%, 2&amp;3</td>
<td>(Y), 5%, 2; 10%, 2&amp;3</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>2</td>
<td>Holiday</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>3</td>
<td>Visit NC</td>
<td>N</td>
<td>N</td>
<td>(Y), 5%, 2; 10%, 2&amp;3</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>VFR</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>(Y), 5%, 2; 10%, 2&amp;3</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>5</td>
<td>Business</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>(Y), 10%, 2</td>
<td>N</td>
</tr>
<tr>
<td>6</td>
<td>Other</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

Q18 is about whether the visit to NC has made the individual want to learn more about contemporary art. As shown in Table 6.12, the study group gains a significantly greater cultural impact (for Q18) than Holiday, Business, and Other groups at the 5% level. Holiday also has a larger impact than VFR, Business and Other. Additionally, Business and other also have significantly less impact (for Q18) than visit NC at the 5% level.
6.2.4 Other General Questions

This section discusses the results of all the other general questions in the tourist version of the questionnaire.

Figure 6.21 NC-TV: Q2 Day Visit vs. Staying Overnight

Question 2 determines whether the visitor was visiting Nottingham for a day or overnight. Figure 6.21 shows that almost 70% of the interviewed tourists were in Nottingham on a day visit, with only approximately 30% staying overnight. Based on 55 tourists, the average length of stay was 3.42 nights. The three most popular number of nights for overnight tourists were 2 nights, 3 nights and 1 night, which accounted for 31%, 22% and 16% of the sample.

Q3. “What other attractions have you been to or do you intend going to during your visit to Nottingham?”

The top five mentioned attractions that tourists had been to/intended to visit while they were in Nottingham are Nottingham Castle (27.16%), the GOJ (14.81%), urban landscapes/architecture (11.11%), City of Caves (6.17%), and Market Square & Lace Market (5.56%).
Q4. “What else have you done or do you intend to do during your visit to Nottingham?"

The most popular activities that the surveyed tourists had done or intended to do while they were in Nottingham were shopping (54.17%), having lunch/dinner (21.30%), having tea/coffee and drinks (8.80%), visiting Nottingham city centre (6.94%) and enjoying the nightlife in Nottingham (3.24%).

Q3 and Q4 help the interviewer gain a view of where the TVs go, and what they also do apart from visiting NC, while in Nottingham. It also assists in identifying whether the interviewed TVs are cultural tourists.

Q10. “I like seeing real and original objects (i.e. castle, museum, art gallery, monument, etc.).”

Q11. “I like being among local people and experiencing their real life and culture.”

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>Strongly Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As discussed in Chapter 5, some participants mentioned words like ‘authentic’, ‘real’, and ‘original’ in the focus groups, since they believed that whether cultural objects, attractions or events are authentic influences cultural tourists’ decisions. The examples given by participants can be grouped into two categories, object authenticity and experiential authenticity. Q10 (object authenticity) and Q11 (experiential authenticity) have been included in the questionnaires. It assists with finding out what kind of role authenticity is playing in cultural tourists’ decision-making, especially in terms of visiting cultural attractions.

Q10 examines whether tourists like seeing real and original objects (e.g. castle, museum, art gallery, monument, etc.). Figure 6.22 indicates that the means for all
types of tourists (excluding ‘other’) are larger than 8.8, with a mean value of 8.87. This means all types of tourists like visiting cultural attractions to see real and original objects. When they choose places to visit, they take ‘object authenticity’ into account.

For tourists who planned before, and had already taken visiting NC into their itinerary before arriving in the city, they may like authenticity and cultural attractions. They would either seek this type of tourism information once they arrive in the city, or when they have spare time in the city, they would choose to visit cultural attractions first, because of their preference. However, the majority of unplanned tourists did not even know of NC; they just came to visit Nottingham for other purposes and arrived at NC, because the location is so close to many cultural attractions, restaurant, pubs, and cafes, as well as being well signposted around the city centre. It is very easy for tourists to pass by, or notice NC, when doing other activities in Nottingham. The above results have already shown the majority of unplanned visitors like authenticity, and would visit NC if there was no time constraint. NC is free of charge to all visitors.

Q11 asks tourists whether they like being among local people and experiencing their real life and culture when on holiday. Figure 6.23 shows the average score for Q11 is
7.99, which indicates tourists like ‘experiential authenticity’. The sample size for the ‘other’ type of tourists is only 3, so it can be disregarded. The range of the average scores for the remaining three types of tourist ranges from 7.75 to 8.38.

The means of Q10 and Q11 are different from each other (8.87 vs. 7.99), and the statistical t-tests show the overall average Q10 is significantly larger\(^\text{14}\) than Q11 at 5% level (mainly depending on the significant difference among the planned before tourists). This means that tourists who visited NC are more interested in ‘object authenticity’ than ‘experiential authenticity’, although both are well-liked by tourists. This outcome is caused by the character of NC. NC is a gallery that displays various artworks to visitors through exhibitions, rather than providing opportunities for visitors to experience local people’s real life and culture.

<table>
<thead>
<tr>
<th>Q10 &amp; Q11</th>
<th>Correlation coefficient</th>
<th>Test value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q10 &amp; Q11</td>
<td>0.2679</td>
<td>3.7104</td>
</tr>
</tbody>
</table>

\(^{14}\) The p-values of Q10 vs. Q11: type 2 (0.00003), type 3 (0.00004)
The results in Table 6.13 suggest that Q10 and Q11 have a positive correlation (0.2679), because the 178 degrees of freedom provides a critical T-value of 1.9734 for a two-tailed test at the 5% level, and the t-test value of Q10 and Q11 is 3.7104, which is greater than the critical T-value, therefore H₀ can be rejected, meaning Q10 and Q11 have a significant positive correlation. In other words, the more a tourist is in object authenticity, the more this individual considers experiential authenticity.

Figure 6.24 NC-TV: Plots of Responses to Q10 & Q11

In Figure 6.24, the responses given in the survey are shown, with the diameter of point being proportional to the number of respondents. By combining the answers to Q10 and Q11, The plots of responses to Q10 vs. Q11 show the majority of the combinations of choices for both questions are located on the upper right-hand corner, indicating most of the tourists take object authenticity and experiential authenticity into account when they choose destinations to visit.

Q12. How many people are in your group? ____

Q13. By the end of your visit, how much in total do you think your group will have spent in Nottingham? £___________
Every participating tourist was asked the amount of money that his/her group had spent or expected to spend in Nottingham while they were there. The total estimated expenditure spent in Nottingham by the interviewed parties at NC was £28,048, which gives a mean of £155.82 per interviewed party. Basing on a mean of 3.69 people per party (excluding children and babies), this provides an average expenditure of £42.24 per visitor.

Figure 6.25 NC-TV: Q19 Intention to Return to Nottingham

![Figure 6.25 NC-TV: Q19 Intention to Return to Nottingham](image)

Figure 6.25 shows that 97% of the tourists intend to return to Nottingham in the future. Almost 3% were not sure whether they would return to Nottingham, however, judging by the home locations of those five respondents, it can be deduced that they cannot visit Nottingham easily because of their geographic locations. No one had the intention of not returning to Nottingham in the future.
According to Figure 6.26, the intended return rate to NC reaches nearly 90% and only approximately 2% of the tourists indicate that they do not intend to return to NC in the future.

As shown in Figure 6.27, around 39% of the tourists belong to the ‘35-54’ age group, the largest group represented in the sample. The second largest group was ‘18-34’, and makes up almost 30% of the whole sample size. A quarter of the tourists are from the age group 55-74, and the two smallest age groups are two extreme cases (<18 and 75+).
The tourist samples collected at NC contain approximately 12% more female respondents than males, which indicates NC attracts slightly more female than male tourists (56.11% vs. 43.89%).

6.2.5 Correlations between Related Questions

Table 6.14 NC-TV: Correlation Coefficients between Q6 & Q8/Q6 & Q9

<table>
<thead>
<tr>
<th></th>
<th>Correlation coefficient</th>
<th>Test value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q6 &amp; Q8</td>
<td>0.1328</td>
<td>1.7873</td>
</tr>
<tr>
<td>Q6 &amp; Q9</td>
<td>0.0852</td>
<td>1.1407</td>
</tr>
</tbody>
</table>

As shown in Table 6.14, the results of both correlation coefficients (Q6 & Q8 and Q6 & Q9) are positive. Again, there are 178 degrees of freedom giving a critical value of 1.9734 for a two-tailed test at the 5% level. The test statistics are 1.7873 (for Q6 & Q8) and 1.1407 (for Q6 & Q9). Since both of them are smaller than the critical value, the $H_0$ cannot be rejected, which means both correlations are not significantly positive. As discussed in Chapter 2, different individuals have different preference functions, and this leads people to choose the things that can help them to gain more satisfaction. In this case, it is worthwhile investigating the correlations between the number of times that the tourists have visited a contemporary art gallery before and the background probability and probability uplift.

Table 6.15 NC-TV: Correlations between Q6 & Probability Uplift/Q7 & Background Probability/Q7 & Probability Uplift

<table>
<thead>
<tr>
<th></th>
<th>Correlation coefficient</th>
<th>Test value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q6 &amp; probability uplift</td>
<td>0.0140</td>
<td>0.1871</td>
</tr>
<tr>
<td>Q7 &amp; background probability</td>
<td>0.4065</td>
<td>5.9355</td>
</tr>
<tr>
<td>Q7 &amp; probability uplift</td>
<td>-0.4499</td>
<td>-6.7213</td>
</tr>
</tbody>
</table>
Table 6.15 shows the correlation coefficients of Q6 & the probability uplift and Q7 & the background probability are positive; they are 0.0140 and 0.4065, respectively. Q7 & the probability uplift have a negative correlation coefficient (-0.4499). When the degrees of freedom are 178, the critical value is 1.9734 for a two-tailed test at the 5% level. The test statistics are 0.1871 (for Q6 & probability uplift), 5.9355 (for Q7 & background probability), and -6.7213 (for Q7 & probability uplift). Since 0.1871 < 1.9734, it indicates there is no significant positive correlation between Q6 & probability uplift. Because 5.9355>1.9734 and -6.7213<-1.9734, both null hypotheses can be rejected, meaning both correlations (for Q7 & background probability and Q7 & probability uplift) are significant. It indicates that the higher background probability (or the lower the probability uplift) the tourist had, the less likely this individual had planned his/her visit to NC in advance.

| Table 6.16 NC-TV: Correlations between Q6 & Q10/Q6 & Q11 |
|-----------------------------------------------|------------------|
| Q6 & Q10                                      | Correlation coefficient | 0.1809 |
|                                               | Test value         | 2.4401 |
| Q6 & Q11                                      | Correlation coefficient | 0.1024 |
|                                               | Test value         | 1.3736 |

As indicated in Table 6.16, both the correlation coefficients between Q6 & Q10 and Q6 & Q11 are positive. As the degrees of freedom are 178, the critical t-value is 1.9734 for a two-tailed test at the 5% level. The t-test statistics are 2.4401 (for Q6 & Q10) and 1.3736 (for Q6 & Q11). Since 2.4401 is larger than 1.9734, $H_0$ can be rejected at the 5% level, meaning Q6 & Q10 have a significant positive correlation. This indicates the more times the tourist has visited contemporary art themed galleries before, the more likely that this tourist is interested in object authenticity. Visiting NC provides tourists with opportunities to experience object authenticity, as the exhibitions at NC display the original contemporary artworks or objects. Visiting
contemporary art galleries is a type of experience where visitors consume object authenticity.

Because $1.3736$ is smaller than the critical value $1.9734$, the hypothesis $H_0$ is accepted at the 5% level, which means there is no strong evidence that shows $Q6$ & $Q11$ have a significant positive correlation. $Q11$ is about tourists’ attitudes towards experiential authenticity. However, tourists who visit contemporary art galleries can only experience object authenticity rather than experiential authenticity. It is not surprising that the result does not show a significant correlation between $Q6$ & $Q11$.

Table 6.17 NC-TV: Causal Qs & Cultural Impact Qs

<table>
<thead>
<tr>
<th>NC-TV</th>
<th>Correlation coefficient</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q8 &amp; Q14</td>
<td>0.0313</td>
<td>No</td>
</tr>
<tr>
<td>Q8 &amp; Q15</td>
<td>-0.0482</td>
<td>No</td>
</tr>
<tr>
<td>Q8 &amp; Q16</td>
<td>0.1836</td>
<td>Yes</td>
</tr>
<tr>
<td>Q8 &amp; Q17</td>
<td>0.0065</td>
<td>No</td>
</tr>
<tr>
<td>Q8 &amp; Q18</td>
<td>-0.0474</td>
<td>No</td>
</tr>
<tr>
<td>Q8 &amp; Overall</td>
<td>0.0378</td>
<td>No</td>
</tr>
<tr>
<td>Q9 &amp; Q14</td>
<td>0.0018</td>
<td>No</td>
</tr>
<tr>
<td>Q9 &amp; Q15</td>
<td>0.0018</td>
<td>No</td>
</tr>
<tr>
<td>Q9 &amp; Q16</td>
<td>0.0316</td>
<td>No</td>
</tr>
<tr>
<td>Q9 &amp; Q17</td>
<td>0.0031</td>
<td>No</td>
</tr>
<tr>
<td>Q9 &amp; Q18</td>
<td>0.0464</td>
<td>No</td>
</tr>
<tr>
<td>Q9 &amp; Overall</td>
<td>0.0086</td>
<td>No</td>
</tr>
</tbody>
</table>

Table 6.17 shows all of the correlation coefficient results between causal questions ($Q8$ & $Q9$) and cultural impact questions ($Q14$-$Q18$). Apart from the correlation coefficient (0.1836) of $Q8$ and $Q16$, which is significant (when the degrees of freedom is 178, $\alpha=5\%$), the rest of the correlation coefficients do not show any significance. This means for tourist visitors at NC, when the tourist had heard of NC, the stronger intention he/she had to visit Nottingham, the more likely that the NC would help tourist broaden their knowledge of the local cultural scene.
6.3 The Data Analysis of Local Visitors' Results at NC

6.3.1 Introduction

This section presents the data analysis and discussion of the survey results for the LVs at NC. The results are discussed in two separate sections: (1) the culture-related questions; (2) the other general questions.

6.3.2 Culture-Related Questions

This section discusses the culture-related questions in the LV version of the survey collected at NC. Of the six questions in this survey which relate to the cultural impact caused by visiting NC, the core questions are the five cultural impact questions, from Q5 to Q9. They are identical to the cultural impact questions in the tourist version.

Q5. “NC stimulated my interest and improved my perceptions of contemporary art.”

Q6. “NC helped me to gain new insights into contemporary art.”

Q7. “NC has enhanced the impression I have of the city of Nottingham.”

Q8. “My visit to NC has made me want to learn more about contemporary art.”

Q9. “NC has helped broaden my knowledge of the local cultural scene.”

1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree
Figure 6.28 provides the distribution of the responses for Q5 with responses ranged in decreasing order, from ‘strongly agree’ (5) to ‘strongly disagree’ (1). Figure 6.34 shows half of the respondents ‘agree’, and almost 20% of them ‘strongly agree’ with the statement that NC stimulated their interests and improved their perceptions of contemporary art. Nearly 20% of the LVs chose ‘neither agree nor disagree’. Only approximately 9% of the locals indicated that they were not influenced by NC.
Q6 tests whether LVs have gained any new insights into contemporary art after their visits. As shown in Figures 6.29, slightly more than 70% of the respondents felt that they have gained new insights into contemporary art after their visits to NC. Around 20% of the locals were not sure about the statement, and around 10% of them either disagreed or strongly disagreed with it.
Figures 6.30 indicates almost 7 in 10 of the interviewed local respondents feel that NC has enhanced their impressions of the city of Nottingham. Nevertheless, just over 10% of the participating tourists disagree.
Q8 is about whether the locals’ visits to NC have made them want to learn more about contemporary art. Figure 6.31 shows almost 62% of the LVs stated that their visits to NC made them want to learn more about contemporary art. In contrast, less than 10% of them had no intention of learning more about contemporary art in the future after their visits to NC.
Q9 tests whether NC has helped the LVs broaden their knowledge of the local cultural scene. As shown in Figure 6.32, around 40% of the respondents felt that NC had broadened their knowledge of the local cultural scene. However, almost 30% of respondents disagreed with that statement, while the final 30% were uncertain about it.
Figure 6.33 shows the average results of the five cultural impact questions in the LV version of the questionnaire, and all of the means are above the neutral value, 3. However, one-tailed t-tests need to be processed to identify whether NC had any significantly positive influence on LVs with respect to cultural impact.

<table>
<thead>
<tr>
<th>NC-LV</th>
<th>Q5</th>
<th>Q6</th>
<th>Q7</th>
<th>Q8</th>
<th>Q9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test value</td>
<td>13.7151</td>
<td>14.5639</td>
<td>12.9223</td>
<td>11.7355</td>
<td>1.4920</td>
</tr>
<tr>
<td>Significance (critical t-value = 2.5953, α=0.01)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

Table 6.18 indicates all but the test statistic of Q9 falls in the critical region, the rest of t-tests results are much larger than the critical t-value (2.5953). This means that except for cultural impact Q9 (i.e. NC has helped broaden my knowledge of the local cultural scene), LVs have been influenced significantly on the other four cultural impact aspects. The cultural impact results of LVs at NC are same as the results for tourists at NC.
The results in Figure 6.34 show that 55% of the interviewed locals had already visited contemporary art galleries more than four times. Only approximately 13% of them had never been to a contemporary art gallery before, which means contemporary art is a new subject to them and visiting NC is a fresh experience for them.

As mentioned in Section 6.2.3, the following two questions were added into the second round data collection to assist with finding out the return rate of visitors and which exhibitions were more popular. The sample size of those two questions in the LV version of the survey is 124.
As a new contemporary art gallery, which had only exhibited three major exhibitions (by May 2010, it had been open less than 7 months), the result in Figure 6.35 shows how popular NC is among the LVs. Almost 22% of the LVs had been to NC more than four times, and just over 30% of them had visited the gallery two or three times. Overall, almost 67% of the LVs are return visitors to NC.

As can be seen from Figure 6.36, almost 90% of all the pre-visits made by the LVs to NC were for the purpose of visiting exhibitions. Around 6% of the visits were to
attend lectures and talks, and the other 5% were for other reasons, e.g. taking children to join art activities, having dining at NC cafe.

6.3.3 Other General Questions

Q2. “I like seeing real and original objects (i.e. castle, museum, art gallery, monument, etc.).”

Q3. “I like being among local people and experiencing their real life and culture.”

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>Strongly Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Similar to the tourists’ results at NC, the mean values of the authenticity questions (Q2 vs. Q3) for LVs are both very high, i.e. object authenticity (8.40) vs. experiential authenticity (8.24). This indicates authenticity is important to LVs when they choose destinations to travel to.

Figure 6.37 NC-LV: Plots of Responses to Q2 & Q3

Figure 6.37 shows the responses given to the LVs’ survey (with the diameter of point being proportional to the number of respondents using the combination of answers to Q2 and Q3). The scattered plots indicate most of the combinations of choices for both
authenticity questions to be located at the upper-right corner, which means LVs interviewed at the GOJ are interested in both types of authenticity.

**Figure 6.38 NV-LV: Q10 Intention to Return to NC**

![Figure 6.38 NV-LV: Q10 Intention to Return to NC](image)

Figure 6.38 shows that the willingness to return to NC among the LVs is extremely high, at 95%. Only 1% of the locals confirmed that they did not intend to come to NC in the future, and 4% of them are uncertain about their future visits to NC.

**Figure 6.39 NC-LV: Q11 Age Groups**

![Figure 6.39 NC-LV: Q11 Age Groups](image)

Figure 6.39 indicates the largest proportion of LVs belong to the 18-34 age group (43%) (which is different from the top-ranked age group (35-54) in TVs' results).
The age groups of 35-54 and 55-74 make up 50% of the LVs, and again, the two smallest age groups are the two extreme cases (<18 and 75+).

The average number of people in each LV travelling group at NC is 2.55. Among the overall LVs’ data set collected at NC, 57% are females and 43% are males.

### 6.3.4 Correlations between Related Questions

<table>
<thead>
<tr>
<th>Table 6.19 NC-LV: Correlations between Q1 &amp; Q2/Q1 &amp; Q3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1 &amp; Q2</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Q1 &amp; Q3</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

As shown in Table 6.19, the results of both correlation coefficients (Q1 & Q2 and Q1 & Q3) are positive. There are 253 degrees of freedom giving a critical t-value of 1.9694 for a two-tailed test at the 5% level. The test statistics are 2.4444 (for Q1 & Q2) and 1.3075 (for Q1 & Q3). Since the t-test value 2.4444 is larger than the critical value, it indicates Q1 & Q2 have a significant positive correlation. This indicates the more times the LV has been to contemporary art galleries before, the more likely the individual is to be interested in object authenticity. However, the test statistic of Q1 & Q3 is smaller than 1.9694, so the null hypothesis is accepted, which means there is no significant positive correlation between Q1 & Q3 (i.e. the number of times the LV has visited contemporary art galleries before and experiential authenticity).

<table>
<thead>
<tr>
<th>Table 6.20 NC-LV: Correlations between Q1-1 &amp; Q2/Q1-1 &amp; Q3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1-1 &amp; Q2</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Q1-1 &amp; Q3</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Table 6.20 shows the results of both correlation coefficients (Q1-1 & Q2 and Q1-1 & Q3) are negative. Again, there are 253 degrees of freedom giving a critical t-value of
1.9694 for a two-tailed test at the 5% level. The test statistics are -2.8339 (for Q1-1 & Q2) and -1.2573 (for Q1-1 & Q3). Because -2.8339 is smaller than -1.9694, there is strong evidence showing Q1-1 & Q2 have a significantly negative correlation. This means the more times a LV has been to NC, the more likely this individual is interested in object authenticity. Moreover, the test value of Q1-1 & Q3 is larger than -1.9694, so H₀ cannot be rejected, meaning there is no significant evidence showing a relationship between the number of visits to NC and experiential authenticity.

Table 6.21 NC-LV: Correlation between Authenticity Questions

<table>
<thead>
<tr>
<th>Q2 &amp; Q3</th>
<th>Correlation coefficient</th>
<th>0.2327</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Test value</td>
<td>3.8063</td>
</tr>
</tbody>
</table>

Table 6.21 indicates there is a positive correlation coefficient between Q2 & Q3, and the test statistic (3.8063) is larger than the critical t-value (1.9694), by a two-tailed test at the 5% level, when the degrees of freedom are 253. Hence, H₀ is rejected. That means Q2 and Q3 have a significant positive correlation between them. In other words, the more the LV is interested in object authenticity, the more he/she would also be interested in experiential authenticity.

6.4 Comparison NC Results between Local Visitors and Tourist Visitors

Section 6.4 presents the comparison results of the local and tourist visitors at NC. The results of the culture-related questions are discussed first, and then the other general questions are compared.
### 6.4.1 Comparison of Culture-Related Questions

#### Table 6.22 NC-LV vs. TV: Comparison of the Cultural Impact Questions

<table>
<thead>
<tr>
<th>Q</th>
<th>vs.</th>
<th>p-value</th>
<th>5%</th>
<th>10%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q5</td>
<td>vs.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>type 2</td>
<td>0.3053</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>type 3</td>
<td>0.3077</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Q6</td>
<td>vs.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>type 2</td>
<td>0.6929</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>type 3</td>
<td>0.7017</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Q7</td>
<td>vs.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q17</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>type 2</td>
<td>0.3735</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>type 3</td>
<td>0.3720</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Q8</td>
<td>vs.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>type 2</td>
<td>0.9136</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>type 3</td>
<td>0.9155</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Q9</td>
<td>vs.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q16</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>type 2</td>
<td>0.9974</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>type 3</td>
<td>0.9974</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

All of the p-value results in Table 6.22 show that there is no significant difference between two sets of responses for all cultural impact questions from the locals and tourists. Therefore, these two data sets can be combined together to calculate the overall cultural impact caused by NC

#### Figure 6.40 NC-LV vs. TV: No. of Times Visited a Contemporary Art Gallery

![Bar Chart](chart.png)

- **Percentage:**
  - Never: 12.55%
  - Once: 12.16%
  - Twice: 12.55%
  - 3 times: 12.78%
  - 4 times +: 57.78%

- **Chart Details:**
  - LV: 54.51%
  - TV: 57.78%

---

[^15]: Further discussion is given in Chapter 10.
The results\textsuperscript{16} of the t-tests between LVs and TVs show that there are no significant differences between them in respect of number of times visited a contemporary art gallery before.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{nc-lv-vs-tv-no-times-visited-nc-before.png}
\caption{NC-LV vs. TV: No. of Times Visited NC Before}
\end{figure}

At the 5\% level, both p-values\textsuperscript{17} show significant differences between the results of number of times that LVs and TVs have been to NC before. The results show that the LVs interviewed have visited NC more times/more often than TVs. Location convenience is part of the reason for the above results.

\subsection*{6.4.2 Comparison of the Other General Questions}

Average number of visitors in each LV group is 2.55, and in each TV group is 3.69. The p-value results\textsuperscript{18} show the differences between the numbers of people in LV groups and TV groups are statistically significant. It indicates the TVs who visited NC were in significantly larger groups than the LVs.

\begin{itemize}
\item \textsuperscript{16}Contemporary Art: Type 2, p-value=0.9103; Type 3, p-value=0.9108
\item \textsuperscript{17}Visited NC: Type 2, p-value=9.3862E-07; Type 3, p-value=4.7688E-07
\item \textsuperscript{18}Group size: Type 2, p-value=0.0008; Type 3, p-value =0.0032
\end{itemize}
The results\(^{19}\) show there are significant differences between LVs and TVs in terms of the object authenticity question as to whether they like seeing real and original objects. However, with respect to the experiential authenticity question, the results\(^{20}\) are not statistically significant.

Among the interviewed local and tourist visitors, the willingness of return rates of NC are both very high (94.51\% vs. 87.78\%). The both p-values\(^{21}\) under type 2 and type 3

\(^{19}\) Object authenticity: Type 2, p-value = 0.0048; Type 3, p-value = 0.0052

\(^{20}\) Experiential authenticity: Type 2, p-value = 0.2207; Type 3, p-value = 0.2308

\(^{21}\) Return to NC: Type 2, p-value = 0.0124; Type 3, p-value = 0.0190
two-tailed tests are statistically significant, which means there are significantly more locals willing to return to NC than tourists.

Figure 6.44 NC-LV vs. TV: Age Groups

By doing two-tailed unpaired t-tests, the results prove there are significant differences between the distribution of the local and tourist visitors’ age group data sets. As shown in Figure 6.55, NC attracts significantly more LVs in age group 18-34, but more TVs in age group 35-54.

Figure 6.45 NC-LV vs. TV: Gender

---

22 Age Groups: Type 2, p-value=0.0107; Type 3, p-value=0.0101
The t-test result\(^{23}\) shows that there is no significant difference between the gender distributions of the interviewed local and tourist visitors at the 5% level. Since the p-values are very close to 0.9, it indicates the two sets of gender distributions are very similar.

6.5 Summary

This chapter reports the results and discussion of the analysis of the tourist and local visitors' survey data collected at NC. For both types of visitor, first of all, discussion centred on the findings related to the questions of the key research objectives, e.g. causal questions (tourist visitors only) and culture-related questions. Then, the descriptive results of other general questions and correlations between the related questions are provided and discussed. At the end, the comparison results and discussions of the differences between the tourist and local visitors at NC are given.

\(^{23}\) Gender: Type 2, p-value=0.8766; Type 3, p-value =0.8766
Chapter 7 Data Analysis and Discussion of the Galleries of Justice Survey Results

7.1 Introduction

This chapter presents the data analysis and discussion of the survey results for the GOJ. As in Chapter 6, it also includes the discussion of the comparison results between two different versions of questionnaires: local and tourist visitors. An overview of the data collected at the GOJ is given in Table 7.1.

<table>
<thead>
<tr>
<th>Types of visitors</th>
<th>Sample size</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>LV</td>
<td>152</td>
<td>40.00%</td>
</tr>
<tr>
<td>TV</td>
<td>228</td>
<td>60.00%</td>
</tr>
<tr>
<td>Total</td>
<td>380</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

As indicated in Table 7.1, among the collected results at the GOJ, two-fifths of the respondents are local visitors and three-fifths of them are tourist visitors, which indicates the GOJ attracts more tourists than the locals (228 vs. 152). Following a similar structure as Chapter 6, this chapter discusses the data results at the GOJ in three sections: Firstly, it presents the results of tourist visitors’ questionnaires; then it discusses results of the local visitors data collected at the GOJ and the section ends with a comparison of the survey results of the tourist and local visitors at the GOJ.

7.2 The Data Analysis of Tourist Visitors’ Results at the GOJ

7.2.1 Introduction

The results in Section 7.2 are separated into the following three sections: 7.2.2 Causal questions’ results and analysis; 7.2.3 Cultural impact questions’ results and analysis;

---

24 Chapter 7 follows a similar structure to Chapter 6, and discusses the descriptive results of the GOJ case study. Due to the word limit and avoiding repetition, unnecessary survey questions and explanations are omitted.
7.2.4 Other general questions’ results and analysis. Finally, Section 7.2.5 discusses some results of correlations between questions among the above three sections.

7.2.2 Causal Questions

7.2.2.1 Primary Causal Questions

Q8. “Because I had heard of the GOJ, I was definitely going to visit Nottingham.”

Q9. “If the GOJ had been closed to the public, I would have come to Nottingham anyway.”

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Strongly Agree</td>
</tr>
</tbody>
</table>

Similar to the NC survey, Q8 quantifies the probability in causality linking the GOJ and a visit to Nottingham. A response of 0 indicates that the tourist was not influenced by the GOJ, while a response of 10 means that with the GOJ present, the tourist was definitely going to visit Nottingham. The response to Q8 (divided by 10) is the probability in causality k. Q9 quantifies the probability that in the absence of the GOJ, the visitor would have visited Nottingham anyway. A response of 0 means that, without the GOJ, the respondent would definitely not have visited Nottingham. A response of 10 means that the visitor would definitely have visited Nottingham anyway. The response to Q9 (divided by 10) is 1-c, where c is the probability in causation (i.e. c is the probability that without the GOJ, the visit would not have occurred).

The overall average result of Q8 (k) is 5.66. This corresponds to a probability slightly greater than 0.5, meaning because visitors had heard of the GOJ, their visits to Nottingham were more likely to happen, than not to happen. The mean response for Q9 (1-c) is 5.30, indicating that with 53% certainty the visits to Nottingham would have happened even without the GOJ. In other words, aggregating fractional
contributions of the GOJ towards visits to Nottingham, 47% of such visits would not have happened, but for the GOJ. The results of Q8 and Q9 are interpreted in terms of the background probability (1-c) of a visit and the probability uplift (ck) created by the attraction.

According to the results given by the responses for Q9, Figure 7.1 is constructed, showing the distribution of the background probability of visit to Nottingham with respondents at the GOJ ranged in decreasing order of probability.

**Figure 7.1 GOJ-TV: Background Probability of Visit to Nottingham**

![Figure 7.1 GOJ-TV: Background Probability of Visit to Nottingham](image)

**Figure 7.2 GOJ-TV: No. of Tourists in Each Background Probability Category**

![Figure 7.2 GOJ-TV: No. of Tourists in Each Background Probability Category](image)
As shown in Figure 7.2, the two largest background probability categories were 100% (28.95%), who would have visited Nottingham anyway, and 0% (25.88%) whose sole reason for visiting Nottingham was the GOJ. For those visitors between those two extremes, the GOJ has a partial uplift effect on the outcome of a tourist’s visit to Nottingham. The smaller the background probability, the more the presence of the GOJ caused the tourists to be in Nottingham.

Figure 7.3 GOJ-TV: Uplift in Probability of Visit

Figure 7.3 shows all of the respondents’ probability uplift of visit due to the GOJ (ranged in the same order as the sample in Figure 7.1). On the right-hand side of Figure 7.3 is the set of the bars that reach 100 on the vertical axis, which indicates those visitors who came to Nottingham only because of the GOJ. The bars are between 0 and 100, representing tourists who came to Nottingham partially because of the GOJ being located there. The uplift probability varies from individual to individual, since it depends on their responses to both Q8 and Q9.
Following the same method, Figure 7.4 is constructed. The final probability is the probability that the tourist in question would visit Nottingham given the GOJ is located in Nottingham. As in the NC case, there are two gaps in Figure 7.3 among all of the vertical bars, indicating two people who were interviewed at the GOJ who expressed a final probability of visit is zero, but they were actually in Nottingham. Again, this may be due to misunderstanding, or wrongly responding to the questions.

Table 7.2 GOJ-TV: The Aggregated Causal Analysis

<table>
<thead>
<tr>
<th>Tourist Sample size</th>
<th>N=228</th>
</tr>
</thead>
<tbody>
<tr>
<td>Background probability</td>
<td>0.5298</td>
</tr>
<tr>
<td>Potential uplift</td>
<td>0.4702</td>
</tr>
<tr>
<td>Probability uplift</td>
<td>0.3724</td>
</tr>
<tr>
<td>Percentage of potential achieved</td>
<td>79.21%</td>
</tr>
<tr>
<td>Final probability</td>
<td>0.9022</td>
</tr>
</tbody>
</table>

As shown in Table 7.2, the background probability is 0.5298, hence, the maximum potential uplift that can be attained by the GOJ is 0.4702. The GOJ reached almost 80% of the potential uplift; by adding the probability uplift 0.3724 to the background probability 0.5298, we get a final probability of 0.9022.

Similar to the NC case, all of the tourist visitors have been separated into three different groups (Table 7.3) according to the same criteria provided in Section 6.2.2.
Table 7.3 GOJ-TV: Summary of Causal Analysis Results for Three Tourist Groups

<table>
<thead>
<tr>
<th>GOJ-TV</th>
<th>Sample size</th>
<th>%</th>
<th>Background probability</th>
<th>Probability uplift</th>
<th>Final probability</th>
<th>mean Q8</th>
<th>mean Q9</th>
<th>Average No. of visitors per group</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>228</td>
<td>100.00%</td>
<td>0.5298</td>
<td>0.3724</td>
<td>0.9022</td>
<td>5.66</td>
<td>5.30</td>
<td>2.81</td>
</tr>
<tr>
<td>Group 1</td>
<td>66</td>
<td>28.95%</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2.27</td>
<td>10.00</td>
<td>2.56</td>
</tr>
<tr>
<td>Group 2</td>
<td>103</td>
<td>45.18%</td>
<td>0.5320</td>
<td>0.3292</td>
<td>0.8613</td>
<td>6.12</td>
<td>5.32</td>
<td>2.77</td>
</tr>
<tr>
<td>Group 3</td>
<td>59</td>
<td>25.88%</td>
<td>0</td>
<td>0.8644</td>
<td>0.8644</td>
<td>8.64</td>
<td>0.00</td>
<td>3.17</td>
</tr>
</tbody>
</table>

Table 7.3 shows nearly 75% of the surveyed tourists came to Nottingham fully or partially because the GOJ was located there. A quarter of them definitely would not have come to Nottingham, without the GOJ being in Nottingham, and the aggregated probability uplift for Group 3 tourists is 86.44, which is more than twice the overall probability uplift (0.3724). Although the Group 2 visitors have a much higher background probability (0.5320) than the Group 3 (0), by adding their probability uplift values to them, it gives two final probabilities which only differ by 0.3% (i.e. 0.8613 vs. 0.8644).

Table 7.4 GOJ-TV: Correlation Coefficients between Q8 & Q9/k & c

<table>
<thead>
<tr>
<th></th>
<th>Q8 &amp; Q9</th>
<th>k &amp; c</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q8 &amp; Q9</td>
<td>-0.7269</td>
<td></td>
</tr>
<tr>
<td>k &amp; c</td>
<td>0.7269</td>
<td></td>
</tr>
</tbody>
</table>

The correlation coefficient between Q8 and Q9 (-0.7269) means that they have a strong negative relationship. In this case, the t distribution is 226 degrees of freedom (228-2) which gives a critical t value of 1.9705 for a two-tailed test at the 5% level. The test statistic is -15.9103, so the null hypothesis can be rejected and the negative correlation is significant, and the correlation coefficient for k and c (0.7269) is significantly positive.
In Figure 7.5, the responses given of the survey are shown, with the diameter of point being proportional to the number of respondents given that combination of answers to Q8 and Q9. As indicated in Figure 7.5, the most popular two combinations of responses to Q8 and Q9 are (10, 0) and (0, 10). The distribution of the scattered plots also indicates the respondents at the GOJ were discriminating Q8 and Q9.

7.2.2.2 Secondary Causal Questions

This section discusses the results of the four secondary causal questions. First of all, the main purpose of their visits to Nottingham is discussed.
As shown in Figure 7.6, the top-ranked main purpose of coming to Nottingham is 'visiting the GOJ', which accounted for around 42% of the whole tourist sample. 'VFR' ranks the second and makes up around 27% all of tourist respondents. Nearly a quarter of the interviewed tourists came to Nottingham to spend their holidays. The least important purpose for the tourists at the GOJ is 'study' (1.32%).

Figure 7.7 indicates more than three out of four tourist respondents decided to visit the GOJ before they arrived at Nottingham. Almost 28% of them planned their trips to
the GOJ after arriving in Nottingham. The ‘unplanned’ and ‘other’ tourists together make up less than 10%.

The relationships between Q7 and two primary causal questions are analyzed below.

Table 7.5 GOJ-TV: Correlation Coefficients between Q7 & Q8/Q7 & Q9

<table>
<thead>
<tr>
<th></th>
<th>Correlation coefficient</th>
<th>Test value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q7 &amp; Q8</td>
<td>-0.5891</td>
<td>-10.9609</td>
</tr>
<tr>
<td>Q7 &amp; Q9</td>
<td>0.5483</td>
<td>9.8558</td>
</tr>
</tbody>
</table>

Results in Table 7.5 suggest Q7 and Q8 have a negative correlation, and Q7 and Q9 have a positive correlation. The 226 degrees of freedom give a critical t-value of 1.9705 for a two-tailed test at the 5% level. The test statistics are -10.9609 (for Q7 & Q8) and 9.8558 (for Q7 & Q9), so there is strong evidence of significance for both correlations.

Moreover, the negative correlation for Q7 and Q8 means when tourists had heard of the GOJ, the more willingness they had to visit Nottingham, the more likely they would plan their trips to the GOJ in advance. The positive correlation coefficient between Q7 and Q9 can be interpreted as meaning that the more likely the tourist would still come to Nottingham, even if the GOJ is closed to the public, the less likely the tourist would plan his/her visit to the GOJ in advance. Again, both results are plausible.
Q8 asks respondents whether because they had heard of the GOJ, they would definitely visit Nottingham. The overall average result of Q8 is 5.66, but the question of how tourists planned their trips distinguishes the tourists' choices in terms of Q8 (k). Figure 7.8 shows the mean of Q8 for the tourists who decided beforehand to visit the GOJ is 7.48, but the average results of Q8 for 'planned after' and 'unplanned' tourists are both much smaller than the 'planned before' visitors, 2.65 and 2.06 respectively. The results indicate that the GOJ plays a much more important role in attracting the ‘planned before’ tourists to Nottingham, as against all other types. Although the ‘planned after’ and ‘unplanned’ tourists did not plan their trips to the GOJ before arriving in Nottingham, they nevertheless had a weak intention of visiting GOJ.
Figure 7.9 shows the aggregated background probability for all tourist respondents is 53%. Both ‘planned after’ and ‘unplanned’ tourists would more likely still come to Nottingham (with background probabilities of 89.2% and 90.6% respectively). However, there is only a 32.1% chance the ‘planned before’ tourists would still visit Nottingham, even if the GOJ was closed to the public on that day. Therefore, it can be deduced that for ‘planned before’ tourists, visiting the GOJ is the most important reason that brought them to Nottingham.

**7.2.3 Culture-Related Questions**

**7.2.3.1 Primary Culture-Related Questions**

Of the ten questions in this survey which relate to the cultural impact caused by visiting the GOJ, the core questions are the six cultural impact questions, from Q14 to Q19.

**Q14.** “The GOJ stimulated my interest in 19th century Victorian Nottingham.”

**Q15.** “The GOJ stimulated my interest in the history of crime and punishment.”

**Q16.** “The GOJ helped me to gain new insights into local history.”
Q17. "The GOJ has helped broaden my knowledge of the local culture."

Q18. "The GOJ has changed the impression I have of the city of Nottingham."

Q19. "My visit to the GOJ has made me want to learn more about Victorian England, crime and punishment."

1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree

Figure 7.10 GOJ-TV: Q14 Distribution

<table>
<thead>
<tr>
<th>Q14</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample size</td>
<td>63</td>
<td>139</td>
<td>25</td>
<td>0</td>
<td>1</td>
<td>228</td>
</tr>
<tr>
<td>%</td>
<td>27.63%</td>
<td>60.96%</td>
<td>10.96%</td>
<td>0.00%</td>
<td>0.44%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Figure 7.10 provides the distribution of responses for Q14 with respondents ranged in decreasing order, from 'strongly agree' (5) to 'strongly disagree' (1). The most common response to Q14 is 'agree' (60.96%), with almost 90% of the surveyed tourists either agreeing or strongly agreeing that the GOJ stimulated tourists' interests.
in 19th century Victorian Nottingham. Only 1 out of 228 tourists indicated that he/she was not influenced by the GOJ at all in this respect.

Figure 7.11 GOJ-TV: Q15 Distribution

<table>
<thead>
<tr>
<th>Q15</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample size</td>
<td>71</td>
<td>131</td>
<td>25</td>
<td>0</td>
<td>1</td>
<td>228</td>
</tr>
<tr>
<td>%</td>
<td>31.14%</td>
<td>57.46%</td>
<td>10.96%</td>
<td>0.00%</td>
<td>0.44%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Q15 tests whether the GOJ has stimulated tourists' interest in the history of crime and punishment. As shown in Figure 7.11, the distribution of the results is very similar to the results of Q14. Almost 90% of the tourists felt that the GOJ stimulated their interest in the history of crime and punishment. Approximately 10% of the respondents chose 'neither agree nor disagree', and again, 1 person strongly disagreed with the statement Q15.
As shown in Figure 7.12, around 87% of the bars are above the neutral level 3, with 5% of the respondents either disagreeing or strongly disagreeing that the GOJ helped them to gain new insights into local history. However, approximately 8% of respondents have no opinion about Q16 after their visits to the GOJ. As discussed in Chapter 5, the GOJ is closely associated with Nottingham’s local history in various aspects. Moreover, all of the tourists who joined the performance tour at the GOJ were guided by the staff who all dressed in proper costume from the Victorian period. Visitors have chance to experience every section of the prison, e.g. law courts, prison cells, caves, marching yards etc.
Q17 tests whether the GOJ has helped tourists broaden their knowledge of Nottingham’s culture. As shown in Figure 7.13, almost 90% of tourists agreed that the GOJ has helped them broaden their knowledge of Nottingham’s culture. However, just over 5% of tourists disagreed with the statement, and approximately another 5% of them did not have any opinion regarding Q17.
Q18 asks the tourists’ opinion whether visiting the GOJ has changed their impressions of the city of Nottingham. As shown in Figure 7.14, the distribution of Q18 is different from the others. Only just over 30% of participating tourists agreed that the GOJ has changed their impressions of Nottingham, and nearly 28% of them disagreed with the statement. However, a large proportion (41.67%) of tourists responded at the neutral value, 3.
Q19 asks the tourists whether their visits to the GOJ have made them want to learn more about Victorian England, crime and punishment. Similar to NC, although visiting the GOJ can be seen as a learning experience for visitors, not everyone would like to learn more about Victorian England, crime and punishment, therefore, only some individuals will have built or started building their preference on crime, punishment and Victorian England. As indicated in Figure 7.15, almost 65% of the tourists agreed with statement Q19. In contrast, only 10% of them had no intention of learning more about Victorian England, crime and punishment. However, just over 25% of tourists could not decide whether they would like to learn more about Victorian England, crime and punishment after their visits to the GOJ.
Figure 7.16 shows that apart from the average results of Q18 (3.05) and Q19 (3.68), the rests of the means for Q14 to Q17 are all larger than four. Separated t-tests were performed, to test whether the means of cultural impact questions are significantly different from the neutral value (3).

Table 7.6 GOJ-TV: Significance of the Cultural Impact Qs’ Results (Q14-Q19)

<table>
<thead>
<tr>
<th>GOJ-TV</th>
<th>Q14</th>
<th>Q15</th>
<th>Q16</th>
<th>Q17</th>
<th>Q18</th>
<th>Q19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test value</td>
<td>18.8908</td>
<td>19.6923</td>
<td>16.1027</td>
<td>19.3418</td>
<td>2.3969</td>
<td>7.0447</td>
</tr>
<tr>
<td>Significance</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

According to the statistics in Table 7.6, at the 1% level, only the test value of Q18 (2.3969) is smaller than the critical T-value (2.6104). This indicates the means of Q14-Q17 and Q19 are significantly larger than the neutral value, 3. The cultural impact questions (excluding Q18) show that the GOJ plays an important role in influencing the cultural impact among tourists. More specifically, the following conclusions can be drawn: the GOJ (1) stimulated tourists’ interest in 19th century Victorian Nottingham, the history of crime and punishment; (2) helped tourists to gain new insights into local history; (3) helped broaden their knowledge of the local
culture; (4) made them want to learn more about Victorian England, crime and punishment.

7.2.3.2 Secondary Culture-Related Questions

Figure 7.17 GOJ-TV: Q5 Number of Times been to Nottingham Before

Figure 7.17 shows that around 50% of the tourists at the GOJ had been to Nottingham more than four times, and approximately 12% of them had been to Nottingham twice or three times. This means more than half of the tourist respondents are regular visitors to Nottingham. However, almost a quarter of tourists were on their first visits to Nottingham.
Figure 7.18 GOJ-TV: Q6 No. of Times Visited a Crime/Punishment Themed Gallery/Exhibition

<table>
<thead>
<tr>
<th>Number of Visits</th>
<th>Percentage</th>
<th>Color Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>54.82%</td>
<td>Blue</td>
</tr>
<tr>
<td>Once</td>
<td>25.00%</td>
<td>Red</td>
</tr>
<tr>
<td>Twice</td>
<td>15.35%</td>
<td>Green</td>
</tr>
<tr>
<td>3 times</td>
<td>7.07%</td>
<td>Grey</td>
</tr>
<tr>
<td>4 times +</td>
<td>1.74%</td>
<td>Brown</td>
</tr>
</tbody>
</table>

Figure 7.18 indicates almost 55% of the participating tourists had never been to a crime and punishment themed exhibition/gallery before they visited the GOJ, and one in four of them had been once to a similar attraction previously. In contrast, only less than 5% of the surveyed tourists had been to crime and punishment themed exhibitions/galleries three times or more than four times before. This indicates only a small proportion of tourists have already established their preference on crime and punishment. The majority of the TVs attracted by the GOJ are new or nearly new visitors.

➤ Main Purposes of Visit vs. Cultural Impact Questions

As in Section 6.2.3.2, in the following tables (Table 7.7-Table 7.12), where there is significance in the difference, the significance level (5% or 10%) is indicated and the type of test. Y indicates a significant difference using both types of test at the 5% level. Type 2 tests assume equal variances in the sample and Type 3 tests allow unequal variances. The summary results are as follows.
Table 7.7 GOJ-TV: Q14 vs. Q1

<table>
<thead>
<tr>
<th>Ranks</th>
<th>Q14 vs. Q1</th>
<th>Visit GOJ</th>
<th>Holiday</th>
<th>Business</th>
<th>VFR</th>
<th>Study</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Visit GOJ</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>(Y)</td>
<td>5%,3;10%,3</td>
<td>N</td>
</tr>
<tr>
<td>2</td>
<td>Holiday</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>(Y)</td>
<td>5%,3;10%,3</td>
<td>(Y), 5%,3;10%,3</td>
</tr>
<tr>
<td>3</td>
<td>Business</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>4</td>
<td>VFR</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>5</td>
<td>Study</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>6</td>
<td>Other</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

Q14 tests whether GOJ has stimulated the tourists’ interest in 19th Century Victorian Nottingham. At the 5% level, Study has a significant smaller impact (for Q14) than Visit GOJ and Holiday, and Other had a smaller impact than Holiday.

Table 7.8 GOJ-TV: Q15 vs. Q1

<table>
<thead>
<tr>
<th>Ranks</th>
<th>Q15 vs. Q1</th>
<th>Holiday</th>
<th>Study</th>
<th>Visit GOJ</th>
<th>Business</th>
<th>Other</th>
<th>VFR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Holiday</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>2</td>
<td>Study</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>3</td>
<td>Visit GOJ</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>4</td>
<td>Business</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>5</td>
<td>Other</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>6</td>
<td>VFR</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

Q15 is about whether the GOJ stimulated tourists’ interest in the history of crime and punishment. As indicated in Table 7.8, the only two significant differences for Q15 are between Visit GOJ and Holiday, and between VFR and Holiday. Holiday had a larger impact than Visit GOJ and VFR.

Table 7.9 GOJ-TV: Q16 vs. Q1

<table>
<thead>
<tr>
<th>Ranks</th>
<th>Q16 vs. Q1</th>
<th>Business</th>
<th>Holiday</th>
<th>Visit GOJ</th>
<th>VFR</th>
<th>Study</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Business</td>
<td>N</td>
<td>N</td>
<td>(Y)10%,2</td>
<td>N</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Holiday</td>
<td>N</td>
<td>N</td>
<td>(Y)10%,2&amp;3</td>
<td>(Y)5%,3;10%,3</td>
<td>(Y)5%,3;10%,2&amp;3</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Visit GOJ</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>(Y)5%,2;10%,2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>VFR</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>(Y)5%,2;10%,2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Study</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Other</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q16 is about the GOJ helping tourists to gain new insights into local history. Table 7.9 shows that at the 5% level, Other has a significantly smaller impact (for Q16) than
Business, Holiday, Visit GOJ, and VFR, and Study had a significantly smaller impact than Holiday.

Table 7.10 GOJ-TV: Q17 vs. Q1

<table>
<thead>
<tr>
<th>Ranks</th>
<th>Q17 vs. Q1</th>
<th>Business</th>
<th>Study</th>
<th>Holiday</th>
<th>Other</th>
<th>VFR</th>
<th>Visit GOJ</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Business</td>
<td>N</td>
<td>N</td>
<td>(Y) 10%,2&amp;3</td>
<td>(Y),10%,3</td>
<td>(Y),10%,3</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Study</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Holiday</td>
<td></td>
<td></td>
<td>(Y) 5%,3; 10%,3</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Other</td>
<td></td>
<td></td>
<td>N</td>
<td>N</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>VFR</td>
<td></td>
<td></td>
<td>N</td>
<td>N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Visit GOJ</td>
<td></td>
<td></td>
<td>N</td>
<td>N</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q17 is about whether the GOJ has helped broaden tourists’ knowledge of the local culture. Table 7.10 indicates at the 5% level, Holiday has a significantly larger impact (for Q17) than Other, VFR, and Visit GOJ.

Table 7.11 GOJ-TV: Q18 vs. Q1

<table>
<thead>
<tr>
<th>Ranks</th>
<th>Q18 vs. Q1</th>
<th>Holiday</th>
<th>VFR</th>
<th>Study</th>
<th>Visit GOJ</th>
<th>Other</th>
<th>Business</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Holiday</td>
<td>N</td>
<td>N</td>
<td>(Y)5%,3; 10%,2&amp;3</td>
<td>N</td>
<td>(Y),10%,2</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>VFR</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Study</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Visit GOJ</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Other</td>
<td></td>
<td></td>
<td>N</td>
<td>N</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Business</td>
<td></td>
<td></td>
<td>N</td>
<td>N</td>
<td>N</td>
<td></td>
</tr>
</tbody>
</table>

Q18 tests whether the GOJ has changed the impression tourists have of Nottingham. As shown in Table 7.11, at the 5% level, the only difference for Q18 is between Holiday and Visit GOJ, Holiday having the bigger impact.

Table 7.12 GOJ-TV: Q19 vs. Q1

<table>
<thead>
<tr>
<th>Ranks</th>
<th>Q19 vs. Q1</th>
<th>Study</th>
<th>Holiday</th>
<th>VFR</th>
<th>Visit GOJ</th>
<th>Business</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Study</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>2</td>
<td>Holiday</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>3</td>
<td>VFR</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>4</td>
<td>Visit GOJ</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>5</td>
<td>Business</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>6</td>
<td>Other</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>
Q19 is about whether tourists’ visits to the GOJ have made them want to learn more about Victorian England, crime and punishment. As shown in Table 7.12, there is no significant difference among all main purposes of visits for Q19.

7.2.4 Other General Questions

This section presents the results of all of the other general questions in the tourist version of the questionnaire.

Figure 7.19 GOJ-TV: Q2 Day Visit vs. Staying Overnight

Figure 7.19 shows that three in five of the interviewed tourists at the GOJ were visiting Nottingham on a day visit, with less than 40% of them staying overnight. Based on 87 tourists, the average length of stay was 2.64 nights. The top-ranked three numbers of nights for overnight stayed tourists are two nights, three nights and one night, which accounted for 40%, 24% and 22% of the overall sample.

Q3. What other attractions have you been to or intend to go to during your visit to Nottingham?

The most mentioned attractions that tourists had been to/intended to visit while they were in Nottingham were the City of Caves (38.43%), Nottingham Castle (29.89%), Sherwood Forest (5.69%), and Nottingham Contemporary (4.63%).
Q4. What else have you done or do you intend to do during your visit to Nottingham?

The top-ranked four activities that the surveyed tourists had done or intended to do while they were in Nottingham were shopping (45.13%), having lunch/dinner (23.47%), visiting Nottingham city centre (8.66%), and enjoying the nightlife there (5.78%).

Q10. “I like seeing real and original objects (i.e. castle, museum, art galleries, monument, etc.).”

Q11. “I like being among local people and experiencing their real life and culture.”

As discussed in Chapter 6, Q10 and Q11 are designed to investigate tourists’ attitudes to object authenticity and experiential authenticity.

Figure 7.20 GOJ-TV: Means of Q10 by Categories in Q7

Figure 7.20 indicates the means for all types of tourists are larger than 8, thus, it provides an average mean of 8.71. This means all types of tourists like visiting cultural attractions to see real and original objects.
Figure 7.21 GOJ-TV: Means of Q11 by Categories in Q7

Figure 7.21 shows that the mean value of Q11 is 8.05, which indicates tourists visiting the GOJ are interested in 'experiential authenticity'. Apart from the means of 'other' type of tourists (7.00), the range of the means for the other three types of tourists is from 7.67 to 8.30.

The mean values of Q10 and Q11 are different from each other (8.71 vs. 8.05), and the statistical t-tests show the overall average Q10 is significantly larger than Q11 at the 5% level (mainly depending on the significant difference among the planned before tourists). This means the tourists who visited the GOJ are more interested in object authenticity than experiential authenticity, although both types are well-liked by tourists.

Table 7.13 GOJ-TV: Correlation Coefficient between Q10 & Q11

<table>
<thead>
<tr>
<th>Q10 &amp; Q11</th>
<th>Correlation coefficient</th>
<th>Test value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.4404</td>
<td>7.3738</td>
</tr>
</tbody>
</table>

The correlation between Q10 and Q11 is positive (0.4404). The 226 degrees of freedom provide a critical T-value of 1.9705 for a two-tailed test at the 5% level. The

25 The p-values of Q10 and Q11: type 2 (0.0000), type 3 (0.0000)
t-test value of Q10 and Q11 is 7.3738, greater than the critical T-value, therefore, H0 can be rejected, meaning Q10 and Q11 have a significant positive correlation. It indicates the more the tourist cares about object authenticity, the more this individual would considers experiential authenticity, when he/she chooses places to visit.

In Figure 7.22, the responses given in the survey are shown, with the diameter of point being proportional to the number of respondents. By combining the answers to Q10 and Q11, the plots of Q10 and Q11 show that the majority of the combinations of choices for both questions are located in the upper right-hand corner, indicating the majority of the tourists at the GOJ do consider both object authenticity and experiential authenticity, when they make decisions on choosing destinations to visit.

Q12. How many people are in your group? _____

Q13. By the end of your visit, how much in total do you think your group will have spent in Nottingham? £__________

The total estimated expenditure spent in Nottingham by all of the interviewed parties at the GOJ was £36,710.47, which gives an estimated mean of £161.01 per
interviewed party. Based on a mean of 2.81 people per party (excluding children and babies), this provides an average expenditure of £62.95 per visitor.

Figure 7.23 GOJ-TV: Q20 Intention to Return to Nottingham

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>196</td>
<td>85.96%</td>
</tr>
<tr>
<td>No</td>
<td>1</td>
<td>0.44%</td>
</tr>
<tr>
<td>Uncertain</td>
<td>31</td>
<td>13.60%</td>
</tr>
</tbody>
</table>

Figure 7.23 shows that almost 86% of the tourists interviewed at the GOJ were willing to return to Nottingham in the future. Only one tourist does not intend to return to Nottingham, the other almost 14% are uncertain about it.

Figure 7.24 GOJ-TV: Q21 Intention to Return to the GOJ

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>82</td>
<td>35.96%</td>
</tr>
<tr>
<td>No</td>
<td>39</td>
<td>17.11%</td>
</tr>
<tr>
<td>Uncertain</td>
<td>107</td>
<td>46.93%</td>
</tr>
</tbody>
</table>

Yes
No
Uncertain
As the results show in Figure 7.24, the intended return rate to the GOJ is only around 36%, and 17.11% interviewed tourists have stated clearly that they do not intend to return to the GOJ in the future. Moreover, nearly half of them are uncertain about whether they intend to re-visit the GOJ.

**Figure 7.25 GOJ-TV: Q23 Age Groups**

As shown in Figure 7.25, for groups of ‘18-34’ and ‘35-54’, each makes up around 33% of the tourists in the sample. The 3rd largest age group is ‘55-74’, which accounted for almost 27%. Again, the two smallest age groups are also the two extreme cases (<18 and 75+).

In the tourist samples collected at the GOJ, males and females each accounted for approximately 50% of the overall sample (49.12% vs. 50.88%).

### 7.2.5 Correlations between Related Questions

<table>
<thead>
<tr>
<th>Correlation between Q6 &amp; Q8/Q6 &amp; Q9</th>
<th>Correlation coefficient</th>
<th>Test value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q6 &amp; Q8</td>
<td>-0.1216</td>
<td>-1.8421</td>
</tr>
<tr>
<td>Q6 &amp; Q9</td>
<td>0.1301</td>
<td>1.9720</td>
</tr>
</tbody>
</table>
As shown in Table 7.14, the correlation coefficient between Q6 and Q8 is negative (-0.1216), and between Q6 and Q9 it is positive (0.1301). There are 226 degrees of freedom giving a critical value of 1.9705 for a two-tailed test at the 5% level. The test statistics are -1.8421 (for Q6 & Q8) and 1.9720 (for Q6 & Q9). Since -1.8421 > -1.9705, the H₀ cannot be rejected, which means the correlation coefficient for Q6 & Q8 is not significantly negative. Because 1.9720 is larger than critical value, it indicates there is significant positive correlation between Q6 and Q9.

Table 7.15 GOJ-TV: Correlations between Q6 & Probability Uplift/Q7 & Background Probability/Q7 & Probability Uplift

<table>
<thead>
<tr>
<th></th>
<th>Correlation coefficient</th>
<th>Test value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q6 &amp; probability uplift</td>
<td>-0.0983</td>
<td>-1.4844</td>
</tr>
<tr>
<td>Q7 &amp; background probability</td>
<td>0.5483</td>
<td>9.8558</td>
</tr>
<tr>
<td>Q7 &amp; probability uplift</td>
<td>-0.5559</td>
<td>-10.0545</td>
</tr>
</tbody>
</table>

Table 7.15 shows the correlation coefficients for Q6 & the probability uplift and Q7 & the probability uplift are negative, which are -1.4844 and -0.5559, respectively, and Q7 & the background probability have a positive correlation coefficient (0.5483). When the degrees of freedom are 226, the critical value is 1.9705 for a two-tailed test at the 5% level. The test statistics are -1.4844 (for Q6 & probability uplift), 9.8558 (for Q7 & background probability), and -10.0545 (for Q7 & probability uplift). Since -1.4844 < 1.9705, it indicates there is no significant negative correlation between Q6 & probability uplift. Because 9.8558 is larger than the critical value (1.9705) and the test statistic of Q7 and probability uplift is greater than the critical value in absolute terms, both null hypotheses can be rejected, meaning both correlations (for Q7 & background probability and Q7 & probability uplift) are significant. It indicates that
the higher background probability (or the lower the probability uplift) the tourist had, the less likely this individual had planned his/her visit to the GOJ in advance.

**Table 7.16 GOJ-TV: Correlations between Q6 & Q10/Q6 & Q11**

<table>
<thead>
<tr>
<th></th>
<th>Correlation coefficient</th>
<th>Test value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q6 &amp; Q10</td>
<td>0.0843</td>
<td>1.2720</td>
</tr>
<tr>
<td>Q6 &amp; Q11</td>
<td>0.1383</td>
<td>2.0990</td>
</tr>
</tbody>
</table>

As indicated in Table 7.16, both the correlation coefficients between Q6 & Q10 and Q6 & Q11 are positive. The test statistics are 1.2720 (for Q6 & Q10), smaller than 1.9705, indicating no significant positive correlation between Q6 & Q10. Moreover, 2.0990 is larger than 1.9705, $H_0$ can be rejected at the 5% level, meaning there is a significant positive correlation between Q6 & Q11, which indicates the more times the tourist has visited crime and punishment themed galleries before, the more likely this tourist is to be interested in experiential authenticity.

As discussed in Chapter 5, the performance tour in the GOJ creates an opportunity for visitors to experience the prisoners’ real life in the Victorian Nottingham period, therefore, the more times the tourist visitor has been to crime and punishment themed galleries/exhibitions before, the more likely the tourist visitor would be to be more interested in experiential authenticity.
Table 7.17 GOJ-TV: Correlations between Causal Qs and Cultural Impact Qs

<table>
<thead>
<tr>
<th>GOJ-TV</th>
<th>Correlation Coefficient</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q8 &amp; Q14 Correlation</td>
<td>0.2454</td>
<td>Yes</td>
</tr>
<tr>
<td>Q8 &amp; Q15 Correlation</td>
<td>0.1465</td>
<td>Yes</td>
</tr>
<tr>
<td>Q8 &amp; Q16 Correlation</td>
<td>-0.0039</td>
<td>No</td>
</tr>
<tr>
<td>Q8 &amp; Q17 Correlation</td>
<td>0.0184</td>
<td>No</td>
</tr>
<tr>
<td>Q8 &amp; Q18 Correlation</td>
<td>-0.0052</td>
<td>No</td>
</tr>
<tr>
<td>Q8 &amp; Q19 Correlation</td>
<td>0.1625</td>
<td>Yes</td>
</tr>
<tr>
<td>Q8 &amp; Overall Correlation</td>
<td>0.1362</td>
<td>Yes</td>
</tr>
<tr>
<td>Q9 &amp; Q14 Correlation</td>
<td>-0.1140</td>
<td>No</td>
</tr>
<tr>
<td>Q9 &amp; Q15 Correlation</td>
<td>-0.1140</td>
<td>No</td>
</tr>
<tr>
<td>Q9 &amp; Q16 Correlation</td>
<td>-0.1212</td>
<td>No</td>
</tr>
<tr>
<td>Q9 &amp; Q17 Correlation</td>
<td>0.0106</td>
<td>No</td>
</tr>
<tr>
<td>Q9 &amp; Q18 Correlation</td>
<td>0.0267</td>
<td>No</td>
</tr>
<tr>
<td>Q9 &amp; Q19 Correlation</td>
<td>0.0013</td>
<td>No</td>
</tr>
<tr>
<td>Q9 &amp; Overall Correlation</td>
<td>-0.0295</td>
<td>No</td>
</tr>
</tbody>
</table>

Table 7.17 shows all of the correlation coefficients between causal questions (Q8 & Q9) and cultural impact questions (Q14-Q19). It indicates Q8 & overall cultural impact have a significant positive correlation (mainly depending on the significant positive relationships of Q8 & Q14, Q8 & Q15 and Q8 & Q19), meaning the more willing the tourist was to visit the GOJ, when he/she heard of it, the more cultural impact this individual had from the actual visit. All of the rest of the correlation coefficients do not show any significance.

7.3 The Data Analysis of Local Visitors’ Results at the GOJ

7.3.1 Introduction

Section 7.3 presents the data analysis and discussion of the survey results for the local visitors’ results at the GOJ. In Section 7.3.2, the culture-related questions are discussed followed by Section 7.3.3, which gives the results of the other general questions.
7.3.2 Culture-Related Questions

This section discusses the culture-related questions in the local visitor version of the survey collected at the GOJ. Of the seven questions in this survey which relate to the cultural impact caused by visiting NC, the core questions are the six cultural impact questions, from Q5 to Q10.

Q5. “The GOJ stimulated my interest in 19th century Victorian Nottingham.”

Q6. “The GOJ stimulated my interest in the history of crime and punishment.”

Q7. “The GOJ helped me to gain new insights into local history.”

Q8. “The GOJ has changed the impression I have of the city of Nottingham.”

Q9. “My visit to the GOJ has made me want to learn more about Victorian England, crime and punishment.”

Q10. “The GOJ has helped broaden my knowledge of the local culture.”

1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree
As shown in Figure 7.26, almost 90% of the local visitors either agree or strongly agree that the GOJ stimulated their interest in 19th century Victorian Nottingham. Apart from one person who disagreed with the above statement, the remaining 10% of respondents chose ‘neither agree nor disagree’.
Q6 tests whether the GOJ stimulated LVs' interest in the history of crime and punishment. Figure 7.27 indicates almost 90% of the respondents believe that the GOJ have stimulated their interest in the history of crime and punishment. None of the respondents disagree with this statement, indicating the GOJ plays an important role in assisting the LVs with learning about the history of crime and punishment.
Figure 7.28 indicates more than 90% of the interviewed local visitors indicated that they either strongly agree or agree that the GOJ helped them to gain new insights into local history. Only two respondents disagreed with the statement.
As shown in Figure 7.29, the distribution of the response for Q8 is very different from the other culture questions. Almost 30% of the respondents either disagree or strongly disagree that the GOJ has changed the impression they have of the city of Nottingham. Less than 40% either strongly agree or agree with the statement, and a much larger proportion of LVs chose the neutral option as their response to this question rather than the other ones.

<table>
<thead>
<tr>
<th>Q8</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample size</td>
<td>17</td>
<td>40</td>
<td>51</td>
<td>42</td>
<td>2</td>
<td>152</td>
</tr>
<tr>
<td>%</td>
<td>11.18%</td>
<td>26.32%</td>
<td>33.55%</td>
<td>27.63%</td>
<td>1.32%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Number of people (counts)
The results in Figure 7.30 show that visits to the GOJ have made nearly 64% of the participating locals want to learn more about Victorian England, crime and punishment. Almost 30% are not sure about this statement, but only 7% of the LVs confirmed that their visits did not make them want to learn more about Victorian England, crime and punishment.
Figure 7.31 GOJ-LV: Q10 Distribution

<table>
<thead>
<tr>
<th>Q10</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample size</td>
<td>40</td>
<td>92</td>
<td>20</td>
<td>0</td>
<td>0</td>
<td>152</td>
</tr>
<tr>
<td>%</td>
<td>26.32%</td>
<td>60.53%</td>
<td>13.16%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Figure 7.31 indicates nearly 90% of the participating LVs agree that the GOJ has helped broaden their knowledge of the local culture. Moreover, none of the LVs disagree with the statement. Approximately 13% did not have any opinion regarding Q10.

Figure 7.32 GOJ-LV: Means of Cultural Impact Questions (Q5-Q10)
Figure 7.32 shows that apart from the means of Q8 (3.18) and Q9 (3.66), the rest of the averages for Q5-Q7 and Q10 are all larger than 4. Separated t-tests were performed to test whether the means of cultural impact questions are significantly different from the neutral value (3). In order to find out whether the GOJ had any significantly positive influence on the LVs with respect to cultural impact, the following one-tailed tests were processed.

Table 7.18 GOJ-LV: Significance of the Cultural Impact Qs’ Results (Q5-Q10)

<table>
<thead>
<tr>
<th>GOJ-LV</th>
<th>Q5</th>
<th>Q6</th>
<th>Q7</th>
<th>Q8</th>
<th>Q9</th>
<th>Q10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test value</td>
<td>23.7063</td>
<td>24.2277</td>
<td>24.2436</td>
<td>2.2574</td>
<td>10.8623</td>
<td>22.6339</td>
</tr>
<tr>
<td>Significance</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Table 7.18 indicates that all but the test statistic of Q8 falls in the critical region; the other test values are much larger than the critical t-value (2.5953). This means that except for cultural impact Q8 (i.e. the GOJ has changed the impression I have of the city of Nottingham), LVs have been influenced significantly by the rest of five cultural impact aspects. The cultural impact results of LVs at the GOJ are same as the results for tourists at the GOJ.

Figure 7.33 GOJ-LV: Q1 No. of Times Visited a Crime & Punishment Themed Exhibition/Gallery Before

- Never, 76, 50.00%
- Once, 43, 28.29%
- Twice, 21, 13.82%
- 4 times +, 5, 3.29%
Figure 7.33 shows that half of the interviewed locals had never visited a crime and punishment themed exhibition and gallery before, which means visiting the GOJ was a totally new experience for them. Less than 8% had visited similar themed exhibitions/galleries three or more than three times before.

7.3.3 Other General Questions

This section discusses the other general questions results and analysis in the local visitors’ versions of questionnaires.

Similar to the tourists’ results at the GOJ, the means of authenticity questions (Q2 & Q3) for LVs are both very high, both object authenticity (at 8.78) and experiential authenticity (at 8.38). This indicates authenticity is an important aspect of LVs, while they choose destinations to travel to.

Figure 7.34 GOJ-LV: Plots of Responses to Q2 & Q3

Figure 7.34 shows the responses given to the LVs’ survey (with the diameter of point being proportional to the number of respondents using the combination of answers to Q2 & Q3). The plots indicate most of the combinations of choices for both
authenticity questions to be located at the upper-right corner, which means LVs interviewed at the GOJ are interested in both types of authenticities.

**Figure 7.35 GOJ-LV: Q11 Intention to Return to the GOJ**

![Pie chart showing the distribution of responses to Q11](chart1)

Figure 7.35 shows that the willingness rate to return to the GOJ is 57% and 34% of the LVs were uncertain about whether they would like to return to the GOJ in the future. Almost 9% confirmed that they do not intend to revisit the GOJ in the future.

**Figure 7.36 GOJ-LV: Q12 Age Groups**

![Pie chart showing age distribution](chart2)

Figure 7.36 indicates the largest proportion of LVs belong to the 18-34 age group (42.11%), which is different from the top-ranked age group (35-54) in the TVs’ result.
The age groups of 35-54 and 55-74 make up almost 47% of the LVs, and again, the two smallest age groups are the two extreme cases (<18 and 75+).

The average number of people in each LV visiting group at the GOJ is 3.41. Among the overall LVs' data set collected at the GOJ, 51% are females and 49% are males.

### 7.3.4 Correlations between Related Questions

**Table 7.19 GOJ-LV: Correlations between Q1 & Q2/Q1 & Q3**

<table>
<thead>
<tr>
<th>Q1 &amp; Q2/Q1 &amp; Q3</th>
<th>Correlation coefficient</th>
<th>Test value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1 &amp; Q2</td>
<td>0.0017</td>
<td>0.0204</td>
</tr>
<tr>
<td>Q1 &amp; Q3</td>
<td>0.1908</td>
<td>2.3806</td>
</tr>
</tbody>
</table>

As shown in Table 7.19, the results of both correlation coefficients (for Q1 & Q2 & Q1 & Q3) are positive. There are 150 degrees of freedom giving a critical t-value of 1.9759 for a two-tailed test at the 5% level. The test statistics are 0.0204 (for Q1 & Q2) and 2.3806 (for Q1 & Q3). Since the t-test value of Q1 & Q2 (0.0204) is smaller than the critical value, it indicates they do not have a significant positive correlation. However, the test statistic of Q1 & Q3 (2.3806) is larger than 1.9759, which indicates there is a significant positive correlation between Q1 & Q3, meaning the more times that the LV has visited crime and punishment themed exhibitions/galleries before, the more this individual is interested in experiential authenticity.

**Table 7.20 GOJ-LV: Correlation between Authenticity Questions (Q2 & Q3)**

<table>
<thead>
<tr>
<th>Q2 &amp; Q3</th>
<th>Correlation coefficient</th>
<th>Test value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.4654</td>
<td>6.4407</td>
</tr>
</tbody>
</table>

Table 7.20 shows there is a positive correlation coefficient between Q2 & Q3 (0.4654), and the t-test value (6.4407) is larger than the critical t-value (1.9759), by a two-tailed test at the 5% level, when the degrees of freedom are 150. Hence, $H_0$ is rejected. That means Q2 and Q3 have a significant positive correlation between them.
In other words, the more the local visitor at the GOJ is interested in object authenticity, the more he/she would be also interested in experiential authenticity.

7.4 Comparison between the Results of Local Visitors and Tourist Visitors

Section 7.4 presents the comparison results of the local and tourist visitors at the GOJ. The results of the culture-related questions are discussed first, and then the other general questions are compared.

7.4.1 Comparison of Culture-Related Questions

<table>
<thead>
<tr>
<th>Table 7.21 GOJ-LV vs. TV: Comparison of the Cultural Impact Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q5 vs. Q14</td>
</tr>
<tr>
<td>type 2</td>
</tr>
<tr>
<td>type 3</td>
</tr>
<tr>
<td>Q6 vs. Q15</td>
</tr>
<tr>
<td>type 2</td>
</tr>
<tr>
<td>type 3</td>
</tr>
<tr>
<td>Q7 vs. Q16</td>
</tr>
<tr>
<td>type 2</td>
</tr>
<tr>
<td>type 3</td>
</tr>
<tr>
<td>Q8 vs. Q18</td>
</tr>
<tr>
<td>type 2</td>
</tr>
<tr>
<td>type 3</td>
</tr>
<tr>
<td>Q9 vs. Q19</td>
</tr>
<tr>
<td>type 2</td>
</tr>
<tr>
<td>type 3</td>
</tr>
<tr>
<td>Q10 vs. Q17</td>
</tr>
<tr>
<td>type 2</td>
</tr>
<tr>
<td>type 3</td>
</tr>
</tbody>
</table>

All of the p-value results in Table 7.21 show that there is no significant difference between two sets of responses for all cultural impact questions from the locals and
tourists. Hence, two data sets will be combined together to calculate the overall cultural impact caused by the GOJ\(^26\).

**Figure 7.37 GOJ-LV vs. TV: No. of Times Visited a Crime/Punishment Themed Exhibition/Gallery**

Figure 7.37 shows the differences in percentage in terms of number of times the visitor visited a crime and punishment themed galleries before between LVs and TVs. However, according to the p-values\(^27\) of the t-tests between LVs and TVs, there is no significant difference between them in respect of the number of times visited a crime and punishment themed exhibition or gallery before.

### 7.4.2 Comparison of the Other General Questions

The average number of visitors in each LV group is 3.41, and in each TV group the average is 2.81. The p-value results\(^28\) show the differences between the numbers of people in LV groups and TV groups are statistically significant. It indicates the LVs who visited the GOJ were in significantly larger groups than the TVs.

---

\(^{26}\) See Chapter 10.

\(^{27}\) Crime/punishment themed: Type 2, p-value=0.2916; Type 3, p-value=0.3009

\(^{28}\) Group size: Type 2, p-value=0.0010; Type 3, p-value=0.0021
In terms of the object authenticity question, whether they like seeing real and original objects, the test results\(^9\) show there is no significant difference between LVs and TVs. However, with respect to the experiential authenticity question, the results\(^{10}\) are statistically significant at the 10% level under both types of test, and at the 5% level under type 3 test. This indicates the LVs are significantly more interested in experiential authenticity than the TVs at the GOJ.

---

\(^{29}\) Object authenticity: Type 2, p-value=0.5745; Type 3, p-value =0.5792

\(^{30}\) Experiential authenticity: Type 2, p-value=0.0525; Type 3, p-value =0.0473
The results of p-values under type 2 and type 3 two-tailed tests are statistically significant, which means there are significantly more locals willing to return to the GOJ than tourists, and more TVs are uncertain about revisiting the GOJ than LVs. This may be caused by location convenience, extra travel cost, the fixed performance tour and exhibitions in the GOJ.

![Figure 7.40 GOJ-LV vs. TV: Age Groups](image)

Although the ranking order of LVs’ age group distribution is the same as the TVs’, the results indicate significant differences are shown between those two sets of age group data. As can be seen from Figure 7.40, the LVs have a significantly larger proportion of visitors from the 18-34 age group than TVs, but the TVs have a greater percentage of visitors in the ‘55-74’ age group than LVs. The results also show the GOJ attracts more TVs from the older age groups than LVs.

### Return to the GOJ:
- Type 2, p-value=0.0006; Type 3, p-value=0.0006

### Age Groups:
- Type 2, p-value=0.0034; Type 3, p-value=0.0032
The p-values$^{33}$ of the t-tests indicate there is no significant difference between the LVs' gender distribution and the TVs' gender distribution, which also suggests the random sampling strategy used to collect the data sets among the local and tourist visitors is valid and reliable.

### 7.5 Summary

This chapter reports the descriptive results and discussion of the analysis of the tourist and local visitors' survey data collected at the GOJ. First of all, for both types of visitors, discussion centred on the findings related to the questions of the key research objectives, e.g. causal questions (tourist visitors only) and culture-related questions. Then, the descriptive results of other general questions and correlations between the related questions are provided and discussed. At the end, the comparison results and discussions of the differences between the local and tourist visitors at the GOJ are given.

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$^{33}$ Gender: Type 2, p-value=0.9334; Type 3, p-value=0.9334
Chapter 8 Comparison of Case Studies: Nottingham Contemporary vs. the Galleries of Justice

8.1 Introduction

Chapter 8 compares and provides detailed discussions of the related survey results between NC and the GOJ discussed in Chapter 6 and Chapter 7. In this chapter, the discussions of results are separated into the following three sections: 8.2 Causal questions results; 8.3 Comparison of cultural impact questions results; 8.4 Comparison of the other general questions results.

Figure 8.1 NC vs. GOJ: Overview of the Data Sets

![Graph showing the proportions of local and tourist visitors at the two attractions.]

Figure 8.1 shows the proportions of the questionnaires collected for local and tourist visitors at the two attractions. To a good approximation, 60% of the visitors to NC are locals, and 60% of the visitors to the GOJ are from outside of Nottingham. This shows that the GOJ attracts a higher proportion of tourist visitors than NC.

8.2 Comparison of the Causal Questions Results

The causal questions were only answered by the tourist visitors participating in the survey. Table 8.1 shows the differences between the two attractions.
Table 8.1 NC vs. GOJ: Probability Breakdown of the Causal Analysis

<table>
<thead>
<tr>
<th>Probabilities</th>
<th>NC: N =180</th>
<th>GOJ: N =228</th>
</tr>
</thead>
<tbody>
<tr>
<td>Background probability</td>
<td>0.7006</td>
<td>0.5298</td>
</tr>
<tr>
<td>Potential uplift</td>
<td>0.2994</td>
<td>0.4702</td>
</tr>
<tr>
<td>Probability uplift</td>
<td>0.2295</td>
<td>0.3724</td>
</tr>
<tr>
<td>Percentage of potential achieved</td>
<td>76.64%</td>
<td>79.21%</td>
</tr>
<tr>
<td>Final probability</td>
<td>0.9301</td>
<td>0.9022</td>
</tr>
</tbody>
</table>

As can be seen from Table 8.1, 70% of the visitors to NC would have been in Nottingham anyway; for the GOJ, the corresponding figure at the GOJ is just over 50%. The probability uplift created by NC was 23%, whereas the probability uplift at the GOJ was 37%. This means the GOJ has a smaller background probability, but a larger probability uplift when compared with NC. In fact, the probability uplift at the GOJ is approximately 60% higher than at NC, which means the GOJ has a stronger pull in terms of bringing tourist visitors to the city of Nottingham.

One implication of this is when it comes to economic impact assessments; this difference in probability uplift implies a substantially higher proportion of expenditure attributed to the GOJ. This is discussed in detail in Chapter 9 Economic Impact.
As shown in Figure 8.2, nearly half of the visitors to Ne were planning to visit Nottingham regardless of NC, as shown by the proportion of the background probability choices in Figure 8.2. For the GOJ, this probability was nearer 30%. Therefore, the GOJ has a relatively small background probability. However, the result also explains why the GOJ has a relatively large probability uplift, as it had nearly twice as many tourist visitors who would not have been in Nottingham, if the attraction was not there.

34 ‘Background probability=100’ means the visitors came to Nottingham solely because of other reasons. ‘Background probability=0’ means the visitors came to Nottingham only for the purpose of visiting the attraction.
As shown in Figure 8.3, more than 40% of the tourist visitors at the GOJ had come to Nottingham with the main purpose of visiting the GOJ. However, the corresponding figure at NC has not even reached 25% and it ranks second rather than first.

Figure 8.4 shows that 36.85% of the visitors at the GOJ had either never been to Nottingham or had only been there once before. The corresponding figure at NC is only 16.57%. GOJ had a figure more than as twice as many as the NC’s. For the GOJ,
only half of the tourists had visited Nottingham often, and the corresponding figure at NC was nearly 50% higher than the GOJ's.

Figure 8.5 NC vs. GOJ: TV-Return Rate to Nottingham

As indicated in Figure 8.5, at NC, except the less than 3% of tourist visitors who were uncertain, almost all of the tourist visitors intended to return to Nottingham in the future. The GOJ has more than 10% less tourist visitors who had intentions to return to Nottingham compared with NC.

Figure 8.6 NC vs. GOJ: TV-No. of Times Visited a Contemporary Art Gallery/a Crime & Punishment Themed Gallery
Figure 8.6 indicates almost 80% of the tourist visitors who visited the GOJ were new or nearly new to this type of attraction. In contrast, at NC, more than 75% of the tourist visitors were experienced (including 4 times +, 3 times, twice) with this type of attraction.

To summarize the results above, three-quarters of the tourist visitors at NC have visited Nottingham often, and correspondingly, the probability that they would be in Nottingham anyway was larger to compare with the figure at the GOJ, which was 70.06%. And that is partly because nearly half of those tourist visitors would definitely be there anyway.

At NC, most tourist visitors are people who have often visited, and also have a high probability of being in Nottingham anyway. Correspondingly, the probability uplift created by NC is relatively small. In contrast, the GOJ attracts more tourist visitors who are new or nearly new to Nottingham compared with NC; therefore, they had a relatively small probability of being in Nottingham anyway, and experienced a comparatively large uplift probability because of the GOJ.

Therefore, it can be concluded that the GOJ is bringing people who had a comparatively smaller probability of being in Nottingham anyway, and also bringing new or relatively new tourists to the city of Nottingham. Whereas at NC, three out of four tourist visitors have been to Nottingham often, and at the GOJ, nearly three times more tourist visitors have never been to Nottingham before. So the GOJ is playing a very distinguished role in terms of bringing new and nearly new tourist visitors to the city of Nottingham.
8.3 Comparison of the Cultural Impact Questions Results

Table 6.22 in Section 6.4.1 and Table 7.21 in Section 7.4.1 indicate that there are no significant differences between the local visitors’ responses and the tourist visitors’ responses to the cultural impact questions at both cultural attractions. Therefore, cultural impact questions data of the local visitors and the tourist visitors can be combined together at each attraction for comparison. For ease of reference, these questions for culture comparison are as follows.

<table>
<thead>
<tr>
<th>NC</th>
<th>vs.</th>
<th>GOJ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q5+Q14: NC stimulated my interest and improved my perceptions of contemporary art.</td>
<td>vs.</td>
<td>Q5+Q14: The GOJ stimulated my interest in 19th century Victorian Nottingham.</td>
</tr>
<tr>
<td>Q6+Q15: NC helped me to gain new insights into contemporary art.</td>
<td>vs.</td>
<td>Q6+Q15: The GOJ stimulated my interest in the history of crime and punishment.</td>
</tr>
<tr>
<td>Q7+Q16: NC has enhanced the impression I have of the city of Nottingham.</td>
<td>vs.</td>
<td>Q7+Q16: The GOJ helped me to gain new insights into local history.</td>
</tr>
<tr>
<td>Q8+Q18: My visit to NC has made me want to learn more about contemporary art.</td>
<td>vs.</td>
<td>Q8+Q18: The GOJ has changed the impression I have of the city of Nottingham.</td>
</tr>
<tr>
<td>Q9+Q16: NC has helped broaden my knowledge of the local cultural scene.</td>
<td>vs.</td>
<td>Q10+Q17: The GOJ has helped broaden my knowledge of the local culture.</td>
</tr>
</tbody>
</table>

The survey at NC has one less cultural question than the one at the GOJ. However, there are two questions in the GOJ survey which asked whether the GOJ stimulated the visitors’ interests on two different aspects, but only one question was used to assess whether NC stimulated visitors’ interest. Therefore, the cultural question (Q5+Q14) is used twice to compare with the two cultural stimulation questions at the GOJ.
Table 8.3 NC vs. GOJ: Test Results for Comparison of Cultural Impact Qs

<table>
<thead>
<tr>
<th>NC(Q5+Q14) vs. GOJ(Q5+Q14)</th>
<th>P-value</th>
<th>5%</th>
<th>10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>type2</td>
<td>2.9522E-08</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>type3</td>
<td>1.3062E-08</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>NC(Q5+Q14) vs. GOJ(Q6+Q15)</td>
<td>P-value</td>
<td>5%</td>
<td>10%</td>
</tr>
<tr>
<td>type2</td>
<td>3.8864E-11</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>type3</td>
<td>1.3978E-11</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>NC(Q6+Q15) vs. GOJ(Q7+Q16)</td>
<td>P-value</td>
<td>5%</td>
<td>10%</td>
</tr>
<tr>
<td>type2</td>
<td>2.3283E-12</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>type3</td>
<td>1.0591E-12</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>NC(Q7+Q17) vs. GOJ(Q8+Q18)</td>
<td>P-value</td>
<td>5%</td>
<td>10%</td>
</tr>
<tr>
<td>type2</td>
<td>7.4471E-26</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>type3</td>
<td>5.3863E-26</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>NC(Q8+Q18) vs. GOJ(Q9+Q19)</td>
<td>P-value</td>
<td>5%</td>
<td>10%</td>
</tr>
<tr>
<td>type2</td>
<td>0.6063</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>type3</td>
<td>0.6037</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>NC(Q9+Q16) vs. GOJ(Q10+Q17)</td>
<td>P-value</td>
<td>5%</td>
<td>10%</td>
</tr>
<tr>
<td>type2</td>
<td>1.2561E-51</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>type3</td>
<td>1.8175E-53</td>
<td>Y</td>
<td>Y</td>
</tr>
</tbody>
</table>

As the results indicated in Figure 8.7, the GOJ has higher averages among the five out of six questions compared with NC, apart from 'Q8+Q18'. Moreover, the mean for this question (3.11) is very close to the neutral choice 3, and it is also the lowest one among all six means. As for NC, apart from 'Q9+Q16', the results of the rest of the
culture questions results are between 3.64 and 3.86. However, in terms of the GOJ, apart from ‘Q8+Q18’ and ‘Q9+Q19’, all the other averages are larger than 4. The results of t-tests in Table 8.3 indicate that apart from the cultural impact questions ‘NC: Q8+Q18 vs. GOJ: Q9+Q19’, the rest of the p-values show that there are significant differences between the means of cultural impact questions at NC and the GOJ.

8.4 Comparison of the Other General Questions Results

As shown in Figure 8.8, the GOJ attracts a larger percentage of tourist visitors who stayed overnight, and the GOJ’s percentage figure of staying overnight is almost a quarter higher than NC. However, NC attracted 12% more tourist visitors who were on a day visit than the GOJ. In keeping with this, for the tourist visitors who visited the GOJ, the average expenditure per head at the GOJ (£62.95) is nearly 50% higher than the tourist visitors’ average expenditure per head at NC (£42.24).
Figure 8.9 presents the means of the overall data (i.e. LVs+TVs) for the object authenticity and experiential authenticity at NC and the GOJ. Although all four overall means are larger than score 8, and the GOJ has greater means in both type of authenticity, however, the results are not statistically significant, so there is no significant difference between NC and the GOJ in terms of visitors’ attitudes to object and experiential authenticities.

35 Object authenticity: Type 2, p-value=0.1817; Type 3, p-value=0.1740.
Experiential authenticity: Type 2, p-value=0.7148; Type 3, p-value=0.7106.
Figure 8.10 shows that, at NC, approximately 90% of visitors overall expressed their intention to revisit NC in the future. In contrast, at the GOJ, the corresponding figure was less than half of the return rate at NC. Moreover, around 40% of the visitors at the GOJ were uncertain about whether they would re-visit the GOJ in the future, which is five times higher than the uncertain return rate at NC.

![Figure 8.11 NC vs. GOJ: Overall Age Groups](image)

As indicated in Figure 8.11, NC and the GOJ have very similar percentages of visitors among each age group, apart from the visitors who are aged in the two extreme groups. The GOJ had more than twice as many visitors who were aged under 18 than NC; however, NC had more than three times as many visitors who are older than 75, compared with the GOJ. On the whole, both galleries attract similar numbers of visitors among the main age groups.
In terms of the gender, as shown in Figure 8.12, NC attracted approximately 10% more female visitors than the GOJ, and the numbers of male and female visitors at the GOJ were nearly even.

8.5 Summary

Table 8.4 Summary of Correlations for TVs & LVs at NC and the GOJ

<table>
<thead>
<tr>
<th>Questions</th>
<th>Tourist Visitors</th>
<th>Local Visitors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NC Correlation</td>
<td>Significance</td>
</tr>
<tr>
<td>Q8 Causality &amp; Q9 Causation</td>
<td>Negative</td>
<td>Yes</td>
</tr>
<tr>
<td>Q10 Object Authenticity &amp; Q11 Experiential Authenticity</td>
<td>Positive</td>
<td>Yes</td>
</tr>
<tr>
<td>Q6 No. of times been to a similar themed gallery &amp; Q8</td>
<td>Positive</td>
<td>No</td>
</tr>
<tr>
<td>Q6 &amp; Background Probability</td>
<td>Positive</td>
<td>No</td>
</tr>
<tr>
<td>Q6 &amp; Probability uplift</td>
<td>Positive</td>
<td>No</td>
</tr>
<tr>
<td>Q6 &amp; Q10</td>
<td>Positive</td>
<td>Yes</td>
</tr>
<tr>
<td>Q6 &amp; Q11</td>
<td>Positive</td>
<td>No</td>
</tr>
<tr>
<td>Q7 How visit was planned &amp; Q8</td>
<td>Negative</td>
<td>Yes</td>
</tr>
<tr>
<td>Q7 &amp; Background Probability</td>
<td>Positive</td>
<td>Yes</td>
</tr>
<tr>
<td>Q7 &amp; Probability uplift</td>
<td>Negative</td>
<td>Yes</td>
</tr>
<tr>
<td>Q1 &amp; Q2 Object Authenticity</td>
<td>Positive</td>
<td>Yes</td>
</tr>
<tr>
<td>Q1 &amp; Q3 Experiential authenticity</td>
<td>Positive</td>
<td>No</td>
</tr>
<tr>
<td>Q2 &amp; Q3</td>
<td>Positive</td>
<td>Yes</td>
</tr>
</tbody>
</table>
This chapter provides discussions of the comparative results of the two surveys at NC and the GOJ, and Table 8.4 summarizes and compares the correlations between the related questions for the tourist and local visitors at NC and the GOJ. NC and the GOJ have the same signs of the correlations in every instance except the highlighted two pairs in pink (Q6 and Q8; Q6 and probability uplift), but no significance is showing for those two pairs of correlations. Moreover, for the six pairs of correlations highlighted in yellow, they not only have the same signs of correlation coefficients, but also the correlations between them are significant at both attractions. Further detailed comparisons and discussions of the economic and cultural impacts of NC and the GOJ are given in Chapters 9 and 10.
Chapter 9 Economic Impact

9.1 Introduction/Method of Computation

In this study, the economic impact of an attraction is defined as the aggregated uplift expenditure within the destination, made by the cultural tourists who visited the destination fully or partially because the attraction is there. The empirical objective of the study is to use the theoretical model to evaluate the economic impact on the local economy caused by tourist visitors at Nottingham Contemporary and at the Galleries of Justice. This chapter explains, in Sections 9.2 and 9.3, how the economic impacts caused by the tourist visitors at NC and the GOJ were evaluated.

The assessment of economic impact counts only tourist visitors' expenditure within the city of Nottingham. This includes expenditures on purchasing goods or services only while the visitors were in Nottingham. Therefore, expenditure on travel to get to Nottingham is not attributable to the economic impact evaluation. The total expenditure used for evaluating the economic impact caused by a certain attraction only counts to the extent of the uplift in expenditure created by the attraction. In other words, it is the amount of money that was spent within the city and directly related to tourist visits to the attraction in question. Each tourist site attracts two different types of visitor (i.e. local visitors and tourist visitors); the tourist visitors are the ones who bring economic impact in the local economy. Because the local visitors to the attraction live locally, we assume that even if they had not come to the attraction, they would have spent their money somewhere else within the city.

The following items listed in Table 9.1 are necessary for evaluating the economic impact that was caused by an attraction in line with Young et al (2010).
Table 9.1 The List of Items for Evaluating Economic Impact Caused by an Attraction

<table>
<thead>
<tr>
<th>Economic Impact Caused by an Attraction</th>
<th>?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expenditure per interviewed tourist party</td>
<td>?</td>
</tr>
<tr>
<td>Average no. of tourist visitors per party</td>
<td>?</td>
</tr>
<tr>
<td>Average expenditure per tourist visitor</td>
<td>?</td>
</tr>
<tr>
<td>Probability uplift caused by the attraction</td>
<td>?</td>
</tr>
<tr>
<td>Average probability uplift expenditure per tourist visitor</td>
<td>?</td>
</tr>
<tr>
<td>No. of tourist visitors per annum</td>
<td>?</td>
</tr>
<tr>
<td>Estimated expenditure of all tourist visitors per annum</td>
<td>?</td>
</tr>
</tbody>
</table>

As the economic impact is based on expenditure, 'the expenditure per tourist visitor' is a crucial figure for the evaluation of economic impact. It can be calculated by using the survey data: the average tourist expenditure per interviewed party divided by the average number of tourist visitors per party.

However, not all the expenditure of each tourist visitor can be attributed to the economic impact caused by the attraction. As discussed in Chapter 4, $\Delta p$ is the probability uplift created by the attraction; in other words, the addition to the probability of visit caused by the attraction enables us to estimate the amount of expenditure within the city that can be ascribed to the attraction.

As derived in Chapter 4, $\Delta p = ck$, $c$ and $k$ can both be calculated by using the survey results. The product of the average expenditure per tourist visitor and the probability uplift caused by the attraction gives the average probability uplift expenditure per visitor. Therefore, the final economic impact caused by an attraction equals 'the average probability uplift expenditure per tourist visitor' multiplied by 'the number of tourist visitors per annum'.

This is the method for calculating the amount of expenditure during the visits that can be attributed to the attraction. There may be further attributable expenditure as the result of a multiplier process and the result of return visits making up the total long...
term economic contribution, but this is not included in our assessment of the immediate economic impact of attractions.

Section 9.2 and 9.3 follow the above economic impact computation method, calculating and also considering the economic impact caused by NC and the GOJ.

9.2 Economic Impact of Nottingham Contemporary

The above method has now been applied to NC.

Table 9.2 The Estimated Economic Impact Caused by NC

<table>
<thead>
<tr>
<th>Economic Impact Caused by NC</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expenditure per interviewed tourist party</td>
<td>£155.82</td>
</tr>
<tr>
<td>Average no. of tourist visitors per party</td>
<td>3.69</td>
</tr>
<tr>
<td>Expenditure per tourist visitor</td>
<td>£42.24</td>
</tr>
<tr>
<td>Probability uplift caused by NC</td>
<td>0.2295</td>
</tr>
<tr>
<td>Average probability uplift expenditure per tourist visitor</td>
<td>£9.69</td>
</tr>
<tr>
<td>No. of tourist visitors per annum</td>
<td>124,140</td>
</tr>
<tr>
<td>Estimated expenditure of all tourist visitors per annum</td>
<td>£1,203,467</td>
</tr>
<tr>
<td>Sample size</td>
<td>N=180</td>
</tr>
</tbody>
</table>

Table 9.2 summarizes the results of the essential figures for evaluating the economic impact caused by NC. The estimated total annual expenditure contribution caused by NC to the local economy was £1,203,467.

Averaging across the tourist visitor expenditure sample gives an estimated expenditure of £155.82 per interviewed party. Based on the survey, the average party size is 3.69 people. This gives an averaged expenditure per tourist visitor of £42.24. However, this amount of expenditure also includes the money that was spent within Nottingham by the tourist visitors who were not fully or partially influenced by the attraction, but who had happened to visit NC on arrival in Nottingham and heard about NC.

The probability uplift was 0.2295, so the uplift expenditure per tourist visitor directly related to NC was £9.69. According to the figure that was published by NC on the
City of Legends, Nottingham Post, released on 28th July 2010, NC had welcomed 200,000 visitors during the first eight months since it opened in November 2009. This means that approximately 25,000 visitors came to NC for visits every month, which means that NC welcomes around 300,000 visitors each year. Among the samples collected at NC, 180 out of 435 questionnaires were completed by tourist visitors, so the estimated proportion of tourist visitors at NC is 41.38%. Multiplying the number of total visitors per annum, 300,000, and the estimated proportion of tourist visitors, gives an estimated number of tourist visitors per annum of 124,140.

The average probability uplift expenditure per tourist visitor is £9.69, so the total annual economic impact caused by NC is £1,203,467. This means approximate 1.2 million pounds expenditure within Nottingham every year can be ascribed to NC.

As discussed in Chapter 6, the aggregated background probability for NC was 0.7006, which means the full potential uplift that could be caused by NC was 0.2994, but only 76.64% of the full potential uplift was achieved. If it was fully achieved, the economic impact caused by NC would be £366,546 higher than the actual estimated one (i.e. £1,203,467).

Table 9.3 The Full Potential Economic Impact that can be Caused by NC

<table>
<thead>
<tr>
<th>Expenditure per tourist visitor</th>
<th>£42.24</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential uplift that can be caused by NC</td>
<td>0.2994</td>
</tr>
<tr>
<td>Average full potential uplift expenditure per tourist visitor</td>
<td>£12.65</td>
</tr>
<tr>
<td>No. of tourist visitors per annum</td>
<td>124,140</td>
</tr>
<tr>
<td>Estimated expenditure of entire visitors per annum</td>
<td>£1,570,014</td>
</tr>
<tr>
<td>Sample size</td>
<td>N=180</td>
</tr>
</tbody>
</table>

The estimated economic impact is based on the survey data. To assure the estimated value is sufficiently reliable to be used for further recommendation, the degree of confidence in terms of the economic impact estimation needs to be specified. By following the equation \( \Pr \left( \bar{X} - 1.96 \frac{\sigma}{\sqrt{n}} < \mu < \bar{X} + 1.96 \frac{\sigma}{\sqrt{n}} \right) = 0.95 \) (Thomas, 2005)
a range of possible values should be identified within a 95% confidence level. \( \mu \) represents the range of the estimated values, \( \bar{X} \pm 1.96 \frac{\sigma}{\sqrt{n}} \) sets the boundaries of the confidence interval, \( \bar{X} \) is the mean of sample, and \( \sigma \) is the sample standard deviation. The value of \( 1.96 \frac{\sigma}{\sqrt{n}} \) for the probability uplift of NC equals 5.03, therefore, the 95% confidence interval of NC probability uplift is \( 0.1792 < \Delta p < 0.2798 \).

### Table 9.4 The Confidence Interval of the Economic Impact Caused by NC

<table>
<thead>
<tr>
<th>NC Economic Impact</th>
<th>standard ( \Delta p )</th>
<th>low ( \Delta p )</th>
<th>high ( \Delta p )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average uplifted expenditure per head</td>
<td>£9.69</td>
<td>£7.50</td>
<td>£11.74</td>
</tr>
<tr>
<td>No. of tourist visitors per annum</td>
<td>124,140</td>
<td>124,140</td>
<td>124,140</td>
</tr>
<tr>
<td>Estimated annual economic impact</td>
<td>£1,203,467</td>
<td>£930,638</td>
<td>£1,457,722</td>
</tr>
</tbody>
</table>

Using the average expenditure per head (i.e. £42.24) to multiply with the low and high NC probability uplifts (i.e. 0.1792 and 0.2798) separately, it gives the range of values for the total annual economic impact, £930,638 < \( E_{NC} \) < £1,457,722. Hence, it can be concluded that we are 95% confident that the annual economic impact caused by NC falls between the range of £930,638 and £1,457,722.

### 9.3 Economic Impact of the Galleries of Justice

In this section, a similar computation method for evaluating economic impact caused by an attraction is applied to the GOJ. Due to the data source provided by the marketing team at the GOJ, the computation of economic impact caused by the GOJ is based on the expenditure per party.

---

36 Thomas, R. L. (2005: p111-113)

37 \( E \) represents the value of the total annual economic impact.
Table 9.5 The Estimated Economic Impact Caused by the GOJ

<table>
<thead>
<tr>
<th>Economic Impact Caused by the GOJ</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average expenditure per interviewed tourist party</td>
<td>£161.01</td>
</tr>
<tr>
<td>Probability uplift caused by the GOJ</td>
<td>0.3724</td>
</tr>
<tr>
<td>Uplift expenditure per interviewed tourist party</td>
<td>£59.96</td>
</tr>
<tr>
<td>No. of tourist visitor parties per annum</td>
<td>13,345</td>
</tr>
<tr>
<td>Estimated expenditure of entire tourist visitors per annum</td>
<td>£800,174</td>
</tr>
</tbody>
</table>

Sample size N=228

Table 9.5 summarizes the results of the necessary figures for evaluating the economic impact caused by the GOJ. Averaging across the sample of expenditure per tourist visitor party gives an estimated average expenditure of £161.01 per interviewed party. As in the NC case, this amount of expenditure also includes the money that was spent in Nottingham by the tourist parties who were not fully or partially influenced by the GOJ, but who had happened to visit the GOJ upon arriving in Nottingham and heard about the GOJ. Hence the uplifted expenditure per party can be calculated by multiplying the average expenditure per interviewed tourist party and the aggregated probability uplift caused by the GOJ (0.3724), giving a value of £59.96.

The data source provided by the GOJ marketing team indicates that 22,241 parties visited the GOJ from April 2009 to March 2010. Among the survey samples collected at the GOJ, 228 out of 380 questionnaires were completed by tourist visitor parties, so the estimated proportion of tourist visitor parties is 60%. Multiplying the total number of tourist visitor parties per annum at the GOJ with the estimated percentage of tourist visitor parties provides an estimated number of tourist visitor parties of 13,345 per annum at the GOJ. Because the average uplifted expenditure per interviewed tourist party was £59.96, the total annual economic impact caused by the GOJ is £800,174.40. In other words, approximately 0.8 million pounds was spent within Nottingham by tourist visitors which can be ascribed to the GOJ per annum.
As discussed in Chapter 7, the aggregated background probability for the GOJ was 0.5298, which means the full potential uplift was 0.4702. In this case, the potential uplift only achieved 79.21%. If the full potential probability uplift was achieved, the economic impact caused by the GOJ would be just over 20% higher than the estimated annual economic impact value.

For similar reasons to those in Section 9.2, following the equation $\Pr\left(\bar{X} - 1.96 \frac{\sigma}{\sqrt{n}} < \mu < \bar{X} + 1.96 \frac{\sigma}{\sqrt{n}}\right) = 0.95$, we can calculate the range of possible economic impact values that should be identified within a degree of 95% confidence. The value of $1.96 \frac{\sigma}{\sqrt{n}}$ for the probability uplift of the GOJ is equal to 5.10, hence, the 95% confidence interval for the GOJ probability uplift is $0.3214 < \Delta p < 0.4235$.

Using the average expenditure per interviewed party (i.e. £161.01) to multiply with the low and high GOJ probability uplifts (i.e. 0.3214 and 0.4235) separately gives the range of values for the total annual economic impact, £690,512.04 < $E_{GOJ}$ < £909,836.76. Therefore, we can conclude that we are 95% confident that the annual

### Table 9.6 The Full Potential Economic Impact that can be Caused by the GOJ

<table>
<thead>
<tr>
<th>Economic Impact Caused by the GOJ</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average expenditure per interviewed tourist party</td>
<td>£161.01</td>
</tr>
<tr>
<td>Potential uplift can be caused by the GOJ</td>
<td>0.4702</td>
</tr>
<tr>
<td>Full potential uplift expenditure per interviewed tourist party</td>
<td>£75.71</td>
</tr>
<tr>
<td>No. of tourists visitor parties per annum</td>
<td>13,345</td>
</tr>
<tr>
<td>Estimated expenditure of entire tourist visitors per annum</td>
<td>£1,010,284</td>
</tr>
<tr>
<td>Sample size</td>
<td>N=228</td>
</tr>
</tbody>
</table>

### Table 9.7 The Confidence Interval of the Economic Impact Caused by the GOJ

<table>
<thead>
<tr>
<th>GOJ Economic Impact</th>
<th>standard $\Delta p$</th>
<th>low $\Delta p$</th>
<th>high $\Delta p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average uplift expenditure per tourist party</td>
<td>£59.96</td>
<td>£51.74</td>
<td>£68.18</td>
</tr>
<tr>
<td>No. of tourist visitor parties per year</td>
<td>13,344.60</td>
<td>13,344.60</td>
<td>13,344.60</td>
</tr>
<tr>
<td>Estimated annual economic impact</td>
<td>£800,142.22</td>
<td>£690,512.04</td>
<td>£909,836.76</td>
</tr>
</tbody>
</table>
economic impact caused by the GOJ falls within the range of £690,512.04 and £909,836.76.

9.4 Adjusted Economic Impacts

The economic impact calculation, following Young et al (2010), has the advantage that it splits the impact into items and explains why the economic impact figure has the value it does. However, as a method of producing an accurate point to estimate the economic impact, it relies on the assumption that the probability uplift and the expenditure for each individual or party are uncorrelated. This is so the mean uplift and mean expenditure can be multiplied together to calculate aggregate uplifted expenditure.

In fact, the estimated correlations between the probability uplift and expenditure at the two attractions are as follows.

Table 9.8 Correlations Between Probability Uplift & Expenditure per head (NC)/party (GOJ)

<table>
<thead>
<tr>
<th></th>
<th>probability uplift &amp; expenditure per head</th>
<th>Correlation coefficient</th>
<th>Test value</th>
</tr>
</thead>
<tbody>
<tr>
<td>NC</td>
<td></td>
<td></td>
<td>-0.1541</td>
</tr>
<tr>
<td></td>
<td>Correlation coefficient</td>
<td></td>
<td>-2.0805</td>
</tr>
<tr>
<td>GOJ</td>
<td>probability uplift &amp; expenditure per party</td>
<td></td>
<td>-0.3012</td>
</tr>
<tr>
<td></td>
<td>Correlation coefficient</td>
<td></td>
<td>-4.7479</td>
</tr>
</tbody>
</table>

The results in Table 9.8 suggest that at NC, the probability uplift and expenditure per head have a negative correlation coefficient (-0.1541), because the 178 degrees of freedom provides a critical T-value of 1.9734 for a two-tailed test at the 5% level, and the significance test value of probability uplift and expenditure per head is -2.0805, which is smaller than the negative critical T-value (-1.9734), therefore, H₀ can be rejected, meaning probability uplift and expenditure per tourist visitor at NC have a significant negative correlation.
In the GOJ case, the probability uplift and expenditure per party also have a negative correlation coefficient (-0.3012), because the 226 degrees of freedom provides a critical T-value of 1.9705 for a two-tailed test at the 5% level, and the significance test value of probability uplift and expenditure per head is -4.7479, which is smaller than the negative critical T-value (-1.9705), so H₀ can also be rejected, meaning probability uplift and expenditure per tourist party at the GOJ have a significant negative correlation.

Both correlations are negative and significantly different from zero at the 5% level. This is an effect that the foregoing method of Young et al. (2010) does not take into account. The way to allow for the negative correlations is to calculate the probability uplift times expenditure at the individual level and then compute the mean. In other words, to compute the mean of the products rather than the product of the means.

The results of doing this are as follows.

### Table 9.9 Adjusted Economic Impact at NC

<table>
<thead>
<tr>
<th>Uplift expenditure per interviewed tourist visitor</th>
<th>£7.35</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of tourist visitors per annum</td>
<td>124,140</td>
</tr>
<tr>
<td>Adjusted estimated annual economic impact</td>
<td>£912,077</td>
</tr>
<tr>
<td>NC Sample size</td>
<td>N=180</td>
</tr>
</tbody>
</table>

### Table 9.10 Adjusted Economic Impact at the GOJ

<table>
<thead>
<tr>
<th>Uplift expenditure per interviewed tourist party</th>
<th>£32.31</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of tourist visitor parties per annum</td>
<td>13,345</td>
</tr>
<tr>
<td>Adjusted estimated annual economic impact</td>
<td>£431,161</td>
</tr>
<tr>
<td>GOJ Sample size</td>
<td>N=228</td>
</tr>
</tbody>
</table>

Table 9.9 for NC is a revised version of Table 9.2, and Table 9.10 for the GOJ is a revised version of Table 9.5.

One cause of the above results may be that tourist visitors who came to Nottingham only or mainly for the attractions had more concentrated or limited thing/things that
they wanted to accomplish while they were in Nottingham. For some of them, visiting NC/the GOJ maybe was the only plan that they had in mind, therefore, after the activity was done, they would then leave the city and return home. In this kind of visiting process, tourists spent less time in the city, hence, less spending (e.g. transportation, food, hotels, etc.).

As for the tourists who spent more money in the city with a smaller probability uplift expenditure by the attraction, this may be because they had several reasons to visit the city and visiting NC/the GOJ was only one of the minor reasons. Since they had more activities that they would like to accomplish in the city, so they spent a longer period in the city and this automatically involves more expenditure.

9.5 Summary

Chapter 9 explores the economic impact caused by NC and the GOJ within Nottingham by using the method and theories developed in Chapter 4. The summary results for economic impact are as follows.

<table>
<thead>
<tr>
<th>Survey Attraction</th>
<th>Estimated Economic Impact</th>
<th>Lower Confidence Limit</th>
<th>Upper Confidence Limit</th>
<th>Adjusted Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>NC</td>
<td>£1,203,467</td>
<td>£930,638</td>
<td>£1,457,722</td>
<td>£912,077</td>
</tr>
<tr>
<td>GOJ</td>
<td>£800,142</td>
<td>£690,512</td>
<td>£909,837</td>
<td>£431,161</td>
</tr>
</tbody>
</table>

In all senses, the economic impact of NC is greater than that of the GOJ. This is especially so in terms of the figures for the 'Adjusted Probability Uplift'. Referring back to Tables 9.2 and 9.5, the GOJ has a larger probability uplift than NC (0.3724 compared with 0.2295). Expenditure per tourist party at the GOJ is larger than at NC (£161 compared with £156). Despite these two factors, the economic impact of NC is larger than that of the GOJ because the visitor numbers are higher at NC. The
estimated annual number of tourist visitors at NC is 124,140. At the GOJ, there is an estimated number of 13,345 tourist parties per year. With an average party size of 2.81, this amounts to 37,499 tourist visitors per year. Tourist visitors to the GOJ spend more, and a larger percentage of their expenditure can be attributed to the attraction. NC has a bigger economic impact, because it has more than three times as many tourist visitors.
Chapter 10 Cultural Impact

10.1 Introduction

As discussed in the literature review, normally cultural impact is treated as an intangible object, which is extremely hard to quantify. However, being able to measure the cultural impact of attractions helps people to understand how influential the cultural attractions can be. In this chapter, a method for quantifying the cultural impact of attractions is introduced. Then the cultural impact caused by NC and the GOJ on the local visitors and the tourist visitors is discussed.

As described in Section 5.4, the cultural impact questions were designed based on the suggestions given by Matarasso's (1997) 50 socio-cultural impacts list derived from participation in the arts. The method of reducing these to a few relevant questions for each attraction is given in Chapter 5. Although Matarasso’s list is wide ranging, it is possible that there were cultural impacts that were missed. Therefore, the cultural impact results below are for cultural impacts that were found.

Five cultural impact questions were tailored for the NC case study, and six cultural impact questions were specifically designed and associated with the GOJ, in order to evaluate the cultural impact caused by the attraction from different angles of cultural effect. For ease of reference, these questions for cultural impact evaluation were as follows.
Table 10.1 NC Cultural Impact Qs vs. the GOJ Cultural Impact Qs

<table>
<thead>
<tr>
<th>NC</th>
<th>vs.</th>
<th>the GOJ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q5+Q14: NC stimulated my interest and improved my perceptions of contemporary art.</td>
<td>vs.</td>
<td>Q5+Q14: The GOJ stimulated my interest in 19th century Victorian Nottingham.</td>
</tr>
<tr>
<td>Q6+Q15: NC helped me to gain new insights into contemporary art.</td>
<td>vs.</td>
<td>Q6+Q15: The GOJ stimulated my interest in the history of crime and punishment.</td>
</tr>
<tr>
<td>Q7+Q17: NC has enhanced the impression I have of the city of Nottingham.</td>
<td>vs.</td>
<td>Q7+Q16: The GOJ helped me to gain new insights into local history.</td>
</tr>
<tr>
<td>Q8+Q18: My visit to NC has made me want to learn more about contemporary art.</td>
<td>vs.</td>
<td>Q8+Q18: The GOJ has changed the impression I have of the city of Nottingham.</td>
</tr>
<tr>
<td>Q9+Q16: NC has helped broaden my knowledge of the local cultural scene.</td>
<td>vs.</td>
<td>Q9+Q19: My visit to the GOJ has made me want to learn more about Victorian England, crime and punishment.</td>
</tr>
<tr>
<td>Q10+Q17: The GOJ has helped broaden my knowledge of the local culture.</td>
<td>vs.</td>
<td>Q10+Q17: The GOJ has helped broaden my knowledge of the local culture.</td>
</tr>
</tbody>
</table>

10.2 Computational Method for Evaluating Cultural Impact

Each cultural impact question uses a five-point Likert scale, in which respondents were given five choices for each question. Choices 1 and 2 are ‘strongly disagree’ and ‘disagree’, and choices 4 and 5 are ‘agree’ and ‘strongly agree’, respectively. In between, choice 3 is the neutral choice - ‘neither agree nor disagree’.

If a respondent’s choice is equal to or less than 3, then it can be concluded that this individual has not gained any preference-forming benefit from the attraction in terms of that specified cultural aspect. In other words, the attraction has not had any cultural impact on this visitor in that aspect.

This study focuses on investigating the overall cultural impact caused by the studied attractions on all visitors. As discussed in Chapter 6 and Chapter 7, between the results of the cultural impact questions among the local visitors and the tourist visitors at each attraction (i.e. NC and the GOJ), no significant differences were found. Therefore, the overall cultural impact results were computed by using the combined data results of the interviewed local and tourist visitors at each attraction. In other words, the full sample collected at each attraction was used to evaluate the cultural
impact caused by NC and the GOJ. Thus, the overall cultural impact evaluation for each attraction is computed by adding all of the extra gained cultural impact points together.

In what follows, it will be convenient to define a unit of cultural impact. If there is any cultural impact in the case of any visitor to the attraction, that visitor must have given a response greater than 3 to one or more of the cultural impact questions. Such a basic unit of cultural impact is defined, and labelled a Jing, as follows.

**Table 10.2 Cultural Impact Points (Jings) List**

<table>
<thead>
<tr>
<th>Likert score</th>
<th>Level</th>
<th>Cultural Impact Points (Jings) Gained</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Max</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Middle point</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>Min</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 10.2 explains the ways of calculating the points for each cultural impact question. If a visitor chooses any score above 3, it means this individual has gained extra Jings from the visit. Choosing score 4 -'agree' credits 10 Jings and choosing score 5 -'strongly agree' credits 20 Jings into the overall cultural impact evaluation. The scale making the difference between no impact and the maximum 20 Jings is arbitrary but convenient.

Furthermore, if an individual chooses scores 1 'strongly disagree', 2 'disagree', or 3 'neutral', that means his/her visit to the cultural attraction has not made this individual gain any changes in his/her culture-related preference. Hence, no points (Jings) can be credited into the overall cultural impact evaluation.

In total, the maximum number of Jings that can be gained from each cultural impact aspect is 20. Overall, for the NC case study, each individual can gain a maximum 100
Jings through the questionnaire after visiting NC. In terms of the GOJ, the maximum number of Jings that can be gained is 120.

In Section 10.3 and Section 10.4, the overall cultural impact evaluation of each attraction is computed by being based on the above method, with more detailed discussion.

### 10.3 Cultural Impact of Nottingham Contemporary

At NC, both local and tourist visitors were asked to respond to exactly the same five cultural impact questions. The following Table 10.3 shows whether the local visitors’ and tourist visitors’ results for the cultural impact questions are significantly different from each other under the type 2 and type 3 test.

| Table 10.3 NC: LV vs. TV Comparison of the Cultural Impact Qs’ Results |
|-----------------|----------------|-------|-------|
| Q5 vs. Q14      | p-value        | 5%    | 10%   |
| type 2          | 0.3053         | N     | N     |
| type 3          | 0.3077         | N     | N     |
| Q6 vs. Q15      | p-value        | 5%    | 10%   |
| type 2          | 0.6929         | N     | N     |
| type 3          | 0.7017         | N     | N     |
| Q7 vs. Q17      | p-value        | 5%    | 10%   |
| type 2          | 0.3735         | N     | N     |
| type 3          | 0.3720         | N     | N     |
| Q8 vs. Q18      | p-value        | 5%    | 10%   |
| type 2          | 0.9136         | N     | N     |
| type 3          | 0.9155         | N     | N     |
| Q9 vs. Q16      | p-value        | 5%    | 10%   |
| type 2          | 0.9974         | N     | N     |
| type 3          | 0.9974         | N     | N     |

As can be seen in Table 10.3, all of the results of p-values indicate that there is no significant difference between the responses to cultural impact questions from local visitors and tourist visitors. Therefore, these two sets of data can be combined together in order to calculate the overall cultural impact caused by NC on visitors.
Table 10.4 NC: Overall Cultural Value Gained by Visitors

<table>
<thead>
<tr>
<th>NC: overall cultural impact Qs</th>
<th>Mean</th>
<th>No. of Jings</th>
<th>Test value</th>
<th>Significance</th>
<th>Significantly gained Jings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q5+Q14</td>
<td>3.8184</td>
<td>8.1839</td>
<td>18.5705</td>
<td>Significant</td>
<td>8.18391</td>
</tr>
<tr>
<td>Q6+Q15</td>
<td>3.7425</td>
<td>7.4253</td>
<td>17.2166</td>
<td>Significant</td>
<td>7.42529</td>
</tr>
<tr>
<td>Q7+Q17</td>
<td>3.8598</td>
<td>8.5977</td>
<td>17.7600</td>
<td>Significant</td>
<td>8.5977</td>
</tr>
<tr>
<td>Q8+Q18</td>
<td>3.6391</td>
<td>6.3908</td>
<td>14.3906</td>
<td>Significant</td>
<td>6.3908</td>
</tr>
<tr>
<td>Q9+Q16</td>
<td>3.0943</td>
<td>0.9425</td>
<td>1.9454</td>
<td>Not significant</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>31.5402</td>
<td>30.5977</td>
<td></td>
<td></td>
<td>30.5977</td>
</tr>
</tbody>
</table>

Table 10.4 shows that all of the means for the combined NC cultural impact questions are between 3 and 4, which indicates that NC had effects on the visitors in terms of those related cultural impact aspects after their visits. However, if and only if the mean of each cultural question is significantly different from the neutral choice 3, this indicates that the visitors have experienced a cultural impact or gained a significant amount of Jings from their visits.

The test values of cultural impact questions are provided in Table 10.4, which help to identify whether the mean for each cultural impact question is significantly different from the neutral choice 3, by comparing each test value with the standard critical value (2.5872, when the degree of freedom is 433 at the 5% level).

As can be seen from Table 10.4, apart from the t-test result of ‘Q9+Q16’ (i.e. NC has helped broaden my knowledge of the local cultural scene), which is smaller than the critical value (2.5872), the other results are all much larger than the critical value. In other words, NC had significant influence on visitors in aggregate, in response to the following four cultural aspects: NC (1) stimulated visitors’ interests and improved their perceptions of contemporary art; (2) helped visitors to gain new insights into contemporary art; (3) enhanced the impression the visitors have of the city of Nottingham; (4) made visitors want to learn more about contemporary art.
As indicated in Table 10.4, the final overall cultural impact gained by each visitor is the sum of the number of Jings gained from NC. However, the table only includes the results that show significant difference from the neutral choice (3); the final aggregated cultural value gained by each visitor from NC is 30.5977 Jings.

Table 10.5 NC: Percentage of the Cultural Impact Gained

<table>
<thead>
<tr>
<th>No. of Jings gained from the visit to NC</th>
<th>30.5977</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of Jings that could have been gained</td>
<td>100</td>
</tr>
<tr>
<td>Percentage of the potential Jings gained</td>
<td>30.60%</td>
</tr>
<tr>
<td>Potential extra percentage of Jings that could be gained</td>
<td>69.40%</td>
</tr>
</tbody>
</table>

At NC, five closely associated cultural impact questions were answered by each visitor, and a maximum of 100 Jings could be gained for each individual in terms of the cultural impact evaluation. Just over 30% of the overall Jings were gained by the visitors at NC.

Table 10.6 Overall Cultural Impact of NC

<table>
<thead>
<tr>
<th>Total no. of visitors (LVs+TVs) per annum</th>
<th>300,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Jings gained at NC per visitor</td>
<td>30.5977</td>
</tr>
<tr>
<td>Total no. of Jings gained at NC by visitors per annum</td>
<td>9,179,310</td>
</tr>
</tbody>
</table>

Since the estimated total number of visitors at NC per annum is 300,000, and the average number of Jings gained at NC per visitor is 30.5977, the product of the two provides the total number of Jings gained by all visitors to NC each year, which is 9,179,310.

Table 10.7 Potential Cultural Impact of NC

<table>
<thead>
<tr>
<th>Total no. of visitors (LVs+TVs) per annum</th>
<th>300,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extra no. of Jings can be gained per visitor at NC</td>
<td>69.4023</td>
</tr>
<tr>
<td>Total potential no. of Jings can be gained at NC by visitors per annum</td>
<td>20,820,690</td>
</tr>
</tbody>
</table>

296
However, the percentage of the extra potential Jings that could be gained by visitors is nearly 70%; this means 20,820,690 Jings could, in principle, also be gained at NC by visitors each year.

### 10.4 Cultural Impact of the Galleries of Justice

At the GOJ, six cultural impact questions were given to both local visitors and tourist visitors. Table 10.8 shows the comparison results of the cultural impact questions given by local and tourist visitors at the GOJ.

<table>
<thead>
<tr>
<th>Question Comparison</th>
<th>p-value</th>
<th>5%</th>
<th>10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q5 vs. Q14</td>
<td>type 2</td>
<td>0.3365</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>type 3</td>
<td>0.3257</td>
<td>N</td>
</tr>
<tr>
<td>Q6 vs. Q15</td>
<td>type 2</td>
<td>0.8182</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>type 3</td>
<td>0.8159</td>
<td>N</td>
</tr>
<tr>
<td>Q7 vs. Q16</td>
<td>type 2</td>
<td>0.6353</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>type 3</td>
<td>0.6178</td>
<td>N</td>
</tr>
<tr>
<td>Q8 vs. Q18</td>
<td>type 2</td>
<td>0.1913</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>type 3</td>
<td>0.1987</td>
<td>N</td>
</tr>
<tr>
<td>Q9 vs. Q19</td>
<td>type 2</td>
<td>0.9000</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>type 3</td>
<td>0.8968</td>
<td>N</td>
</tr>
<tr>
<td>Q10 vs. Q17</td>
<td>type 2</td>
<td>0.2913</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>type 3</td>
<td>0.2779</td>
<td>N</td>
</tr>
</tbody>
</table>

According to the results in Table 10.8, none of the results shows any significant differences between the results from local visitors and tourist visitors under the type 2 and type 3 tests. This means there is no significant difference in respect of the cultural impacts caused by the GOJ on local visitors and tourist visitors. Therefore, in Table
10.9, these two sets of results of cultural impact questions are combined together for evaluating the overall cultural impact caused by the GOJ on visitors.

**Table 10.9 GOJ: Overall Cultural Value Gained by Visitors**

<table>
<thead>
<tr>
<th>GOJ: overall cultural impact Qs</th>
<th>Mean</th>
<th>No. of Jings</th>
<th>Test value</th>
<th>Significance</th>
<th>Significantly gained Jings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q5+Q14</td>
<td>4.1289</td>
<td>11.2895</td>
<td>36.1216</td>
<td>Significant</td>
<td>11.2895</td>
</tr>
<tr>
<td>Q6+Q15</td>
<td>4.1947</td>
<td>11.9474</td>
<td>36.5850</td>
<td>Significant</td>
<td>11.9474</td>
</tr>
<tr>
<td>Q7+Q16</td>
<td>4.1500</td>
<td>11.5000</td>
<td>31.7915</td>
<td>Significant</td>
<td>11.5000</td>
</tr>
<tr>
<td>Q8+Q18</td>
<td>3.1053</td>
<td>1.0526</td>
<td>2.1359</td>
<td>Not significant</td>
<td>0.0000</td>
</tr>
<tr>
<td>Q9+Q19</td>
<td>3.6711</td>
<td>6.7105</td>
<td>15.7368</td>
<td>Significant</td>
<td>6.7105</td>
</tr>
<tr>
<td>Q10+Q17</td>
<td>4.0868</td>
<td>10.8684</td>
<td>31.4372</td>
<td>Significant</td>
<td>10.8684</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>53.3684</td>
<td></td>
<td></td>
<td></td>
<td>52.3158</td>
</tr>
</tbody>
</table>

All of the means of the combined cultural impact questions results at the GOJ are larger than the neutral choice, 3. However, whether the visitors have gained enough cultural utility from their visits in terms of each cultural aspect depends on whether the mean of each cultural question is significantly different from the neutral choice, 3.

As indicated in Table 10.9, the results of test values give an answer. Apart from the t-value of the (Q8+Q18)’s result which is smaller than the critical value 2.5889 (when the degree of freedom is 378 at the 5% level), all the other five t-values of cultural impact questions’ results are much larger than the critical value (2.5889). In other words, the GOJ had not significantly changed the impression that the visitors had of the city of Nottingham, but it had significant influence on all visitors, in response to the following five cultural aspects: the GOJ (1) stimulated visitors’ interests in 19th century Victorian Nottingham; (2) stimulated visitors’ interest in the history of crime and punishment; (3) helped visitors to gain new insights into local history; (4) helped broaden visitors’ knowledge of the local culture; (5) made visitors want to learn more about Victorian England, crime and punishment.
Similarly to NC, the final overall cultural value gained by each visitor at the GOJ can also be calculated by summing all of the number of Jings gained at the GOJ. Again, the computation should only include the results that show a significant difference from the neutral choice. Finally, 52.3158 Jings were gained by each visitor from the GOJ.

**Table 10.10 GOJ: Percentage of the Cultural Impact Gained**

<table>
<thead>
<tr>
<th>No. of Jings gained from the visit to the GOJ</th>
<th>52.3158</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total no. of Jings that could have been gained</td>
<td>120</td>
</tr>
<tr>
<td>Percentage of the potential Jings gained</td>
<td>43.60%</td>
</tr>
<tr>
<td>Potential extra percentage of Jings that could be gained</td>
<td>56.40%</td>
</tr>
</tbody>
</table>

At the GOJ, a maximum of 120 Jings could have been gained by each visitor from his/her visit to the GOJ, because six closely associated cultural impact questions were responded to in the survey. In this case, almost 45% of the overall Jings were gained by the visitors at the GOJ, which is around 15% higher than the percentage achieved at NC.

**Table 10.11 Overall Cultural Impact of the GOJ**

<table>
<thead>
<tr>
<th>Overall average no. of people in each group</th>
<th>3.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total no. of parties visited GOJ per annum (2009/2010)</td>
<td>22,241</td>
</tr>
<tr>
<td>No. of Jings gained at the GOJ per visitor</td>
<td>52.3158</td>
</tr>
<tr>
<td>Total no. of Jings gained at NC by visitors per annum</td>
<td>3,548,844</td>
</tr>
</tbody>
</table>

According to the data provided by the GOJ marketing team, the total number of parties that visited the GOJ from April 2009 to March 2010 is 22,241. Based on the survey result at the GOJ, the average number of visitors in each group is 3.05. The product of the above two figures is the estimated total number of visitors that visit the GOJ each year; multiplied with the number of Jings gained by each visitor from the
GOJ, this results in a total number of Jings gained by all visitors from the GOJ each year of 3,548,844.

Table 10.12 Potential Cultural Impact of the GOJ

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total no. of visitors (LVs+TVs) per annum</td>
<td>67835</td>
</tr>
<tr>
<td>Extra no. of Jings could be gained per visitor at the GOJ</td>
<td>67.6842</td>
</tr>
<tr>
<td>Total potential no. of Jings could be gained at the GOJ by visitors per annum</td>
<td>4,591,362</td>
</tr>
</tbody>
</table>

As indicated in Table 10.10, the potential extra percentage of Jings that could be gained by visitors at the GOJ is around 55%. Following the same computation method as NC, the results in Table 10.12 are derived. It indicates 4,591,362 extra Jings could potentially be gained by visitors at the GOJ each year.

10.5 Summary

This chapter discusses the computation method of evaluating the cultural impact of a cultural attraction on all visitors (i.e. local and tourist visitors), and using the cultural impact questions’ results collected at NC and the GOJ, successfully tests the cultural impact evaluation method across both attractions.

Although the average number of Jings gained by each visitor at the GOJ is larger than at NC (52.3158 compared with 30.5977), the estimated annual cultural impact of NC is much greater than that of the GOJ (9,179,310 Jings vs. 3,548,844 Jings). The reason for this result is that NC has nearly 4.5 times as many visitors as the GOJ (300,000 vs. 67,835) per year.
Chapter 11 Implications and Policy

11.1 Introduction

After reporting the results of the economic and cultural impacts caused by Nottingham Contemporary and the Galleries of Justice in Nottingham in Chapters 9 and 10, this chapter focuses on discussing the policy implications of these results. It also provides a number of key findings for government and related cultural policy makers derived from the results. Moreover, it suggests how policy makers can use the estimated annual economic and cultural impacts results to assist with future planning and policy.

As a preliminary to this, I summarise the findings at the two attractions by fitting tourist visitor numbers into the taxonomy of Chapter 4.

11.2 Visitor Number Breakdowns in the Taxonomy

From the responses to the causal questions and cultural impact questions in the surveys, each tourist can be allocated to one of the six cells of the cultural tourist taxonomy matrix. The aggregate results of doing this are as follows.

11.2.1 Nottingham Contemporary

<table>
<thead>
<tr>
<th>Preference-forming</th>
<th>Preference-following</th>
<th>Attraction not in causal chain</th>
<th>Attraction in causal chain but not alone</th>
<th>Attraction alone in causal chain</th>
</tr>
</thead>
<tbody>
<tr>
<td>(155, 86.11%)</td>
<td>(25, 13.89%)</td>
<td>(86, 47.78%)</td>
<td>(70, 38.89%)</td>
<td>(24, 13.33%)</td>
</tr>
</tbody>
</table>

Table 11.1 NC Tourist Visitors Breakdown

<table>
<thead>
<tr>
<th>Serendipitous cultural tourist</th>
<th>Intentional cultural tourist</th>
<th>Purposeful cultural tourist</th>
</tr>
</thead>
<tbody>
<tr>
<td>(78, 43.33%)</td>
<td>(56, 31.11%)</td>
<td>(21, 11.67%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Incidental cultural tourist</th>
<th>Casual cultural tourist</th>
<th>Sightseeing cultural tourist</th>
</tr>
</thead>
<tbody>
<tr>
<td>(8, 4.44%)</td>
<td>(14, 7.78%)</td>
<td>(3, 1.67%)</td>
</tr>
</tbody>
</table>
The interpretation of the two dimensions of the taxonomy matrix from the empirical results is as follows. The attraction is not in the causal chain if the tourist would definitely have been in Nottingham anyway, i.e. the background probability of visit is 1. The attraction is alone in the causal chain if the background probability is 0. If the background probability is between 0 and 1, the attraction is in the causal chain but not alone.

Strictly, a tourist is preference-forming if the response is positive to any one or more of the cultural impact propositions, i.e. if any of the responses on the five-point scale is greater than 3 (the neutral response). However, suppose a tourist gives responses of 4, 2, 3, 3, 3. Strictly speaking, this tourist is preference-forming because of the response of 4 to the first question, even though the other responses are 3 or less, and even though the response to the second question is 2. The 4 and the 2 do not cancel out. If the responses were 4, 1, 1, 1, 1 the tourist would still be preference-forming, even though only in one dimension.

However, this test is very strict. A tourist who meant to say 3, 3, 3, 3, 3 might as easily say 4, 2, 3, 3, 3 and switch from preference-following to preference-forming. To allow some margin for error, we say that a tourist is preference-forming only if they give at least one response of 5 or two of 4.

Using the above method and the survey results collected at NC, the tourists have been distributed across the cultural tourist taxonomy accordingly.
Just over 85% of the tourist visitors at Ne were preference-forming (i.e. there was a cultural impact involved in their visits.). In fact, the top three ranked groups of cultural tourists are all preference-forming (Figure 11.1).

The results for each type of cultural tourist are now interpreted in detail.

➢ **Serendipitous cultural tourist**

Nearly 45% of tourist visitors to Ne belong to the ‘serendipitous cultural tourist’ group. They are the type of tourists who said they came to the city of Nottingham purely for other reasons, but being in Nottingham, they had gone to Ne and had used their visits to Ne in a preference-forming way. However, only cultural impacts were derived from their visits; no economic impact of Ne on the local economy took place.

➢ **Intentional cultural tourist**

The second largest cultural tourist group found at Ne is the ‘intentional cultural tourists’, which make up just over 30% of the participating tourists. They are the tourists who have been partially influenced by Ne to come to Nottingham, therefore demonstrating both economic and cultural impacts.
Purposeful cultural tourist

The third ranked category is the ‘purposeful cultural tourist’. These 21 tourists came to Nottingham purely because of NC and had a preference-forming experience. All of these tourists’ expenditure within the city of Nottingham is fully attributable to the economic impact caused by NC.

Incidental cultural tourist

In the lower row of the left-hand column, ‘incidental cultural tourists’ made up 5% of cultural tourists. NC had not contributed to bringing them to Nottingham at all, but being in Nottingham they had gone to NC. However, they had not changed their preferences after their visits to NC. Hence, no economic impact and no cultural impact occurred.

Casual cultural tourist

Casual cultural tourists comprise approximately 8% of the cultural tourists at NC. Like the intentional cultural tourists, they came to Nottingham only partially because of NC. However, the outcome for them is that they did not gain any cultural impact through their visits to NC, but a proportion of their expenditure can be attributed to the economic impact caused by NC.

Sightseeing cultural tourist

The last ranked group of cultural tourists at NC is the ‘sightseeing cultural tourist’ which comprised less than 2% of all tourist visitors. They are tourists who came to Nottingham fully because of NC, but their preferences had not changed after their visits to NC. So in this situation, only an economic impact occurred; there was no cultural impact.
At NC, nearly 50% of tourists made no economic impact on the local economy; almost 14% of them received no cultural impact, and slightly less than 5% of the cultural tourists neither made any economic impact nor received any cultural impact from their visits.

### 11.2.2 The Galleries of Justice

#### Table 11.2 GOJ Tourist Visitors Breakdown

<table>
<thead>
<tr>
<th>Preference-forming</th>
<th>Serendipitous cultural tourist (65, 28.51%)</th>
<th>Intentional cultural tourist (102, 44.74%)</th>
<th>Purposeful cultural tourist (59, 25.88%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preference-following</td>
<td>Incidental cultural tourist (1, 0.44%)</td>
<td>Casual cultural tourist (1, 0.44%)</td>
<td>Sightseeing cultural tourist (0, 0%)</td>
</tr>
<tr>
<td>Attraction not in causal chain</td>
<td>66, 28.95%</td>
<td>Attraction in causal chain but not alone (103, 45.18%)</td>
<td>Attraction alone in causal chain (59, 25.88%)</td>
</tr>
</tbody>
</table>

Following the rules discussed following Table 11.1 once more, cultural tourists at the GOJ were distributed among the six types in the cultural tourist taxonomy (see Table 11.2). As can be seen from Table 11.2, nearly 30% of cultural tourists at the GOJ had no economic effect, and just over a quarter of them were tourists who came to Nottingham only because of the GOJ. Around 45% of the tourists were intentional cultural tourists who were influenced to some degree by the GOJ to come to Nottingham.

Some may argue that the serendipitous cultural tourists and the incidental cultural tourists at the GOJ had to pay an entry fee for their visits, and that this is a form of contribution to the economic impact of the GOJ. However, this is not an expenditure brought to Nottingham by the GOJ. Having come to Nottingham for another reason, the serendipitous or incidental cultural tourists visited the GOJ and spent money there on tickets. This is an expenditure that would not have occurred if the GOJ had not
been there, but it is not clear that the money would not have been spent elsewhere in Nottingham.

Therefore, at the GOJ, nearly 30% of tourist visitors are serendipitous cultural tourists who made a cultural gain, but made no contribution towards the economic impact of the GOJ.

**Figure 11.2 GOJ: Preference-forming Tourists vs. Preference-following Tourists**

At the GOJ, almost all cultural tourists were preference-forming, less than 1% were preference-following. In other words, nearly every tourist who visited the GOJ derived a cultural impact from their visit.

**11.2.3 Comparison between NC and the GOJ**

At NC, nearly 15% of tourist visitors were preference-following, but less than 1% of tourists were preference-following at the GOJ. This may have been caused by the nature of the attractions, since art galleries are less specific attractions than crime and punishment themed galleries. In other words, the GOJ is more unique, so fewer tourists had the opportunity previously to visit a similar themed attraction. The comparative results of tourist visitors discussed in Chapter 8, regarding the number of
times tourists had visited a contemporary art gallery and a crime and punishment themed attraction before, implies this. Figure 11.3 clearly shows that almost 80% of the tourist visitors to the GOJ were new or nearly new to this type of attraction. At NC, nearly 80% of tourist visitors had experienced visiting modern art galleries.

Figure 11.3 TV: No. of Times Visited a Contemporary Art Gallery/Crime & Punishment Themed Gallery

In this chapter, the approach used for evaluating the cultural impact on each individual is different from the approach that was used in Chapter 10, because these two approaches serve different purposes. Chapter 10 evaluates the aggregated cultural impact of the two attractions. However, Chapter 11 uses a different approach of coding individuals' cultural impact choices to allocate tourist visitors (individual by individual) into different categories in the cultural tourist taxonomy.

In Chapter 10, the computation method used for estimating the aggregated cultural impact caused by the attractions allows respondents to give negative, neutral and positive answers, which means the lower scores (1, 2) can offset the higher scores (4, 5) for each cultural impact question.
The average number of Jings from each cultural impact question multiplied by the total number of visitors provides the overall cultural impact (in Jings) on visitors, in terms of that cultural aspect. However, only if the mean is significantly larger than 3 can the number of Jings be counted towards the total aggregated cultural impact of an attraction.

In contrast, the calculation method used in this chapter is illustrated in Figure 11.4.

**Figure 11.4 An Alternative Computational Method of Cultural Impact**

![Graph showing an alternative computational method for cultural impact](image)

The reasons for the difference are as follows: 1) the targeted evaluation object is each individual, by analyzing each tourist visitor's answers to all of the cultural impact questions; 2) the coding method is designed for allocating each tourist into the right row (preference-forming or preference-following) in the taxonomy.

Moreover, if the Figure 11.4 approach was used in Chapter 10, it would be very difficult to get any meaningful estimate of the aggregated cultural impact, as the approach would cause positive bias. It would not be possible to use the hypotheses t-tests to find out whether the means are significantly different from the neutral choice. This is because t-tests assume a Normal distribution which would not be the case even approximately because scores less than 4 all become 0.
11.2.4 *The Importance of the Newly Introduced Group ‘Intentional Cultural Tourist’*

The newly added category ‘intentional cultural tourist’ plays a very important role in the taxonomy at both NC and the GOJ. At NC, the type of intentional cultural tourists is the second largest group (i.e. 56, 31.11%) among the six different types, and at the GOJ, the intentional cultural tourist (i.e. 102, 44.74%) is the largest.

The empirical results collected at NC and the GOJ prove how essential the adding of the further category (i.e. intentional cultural tourist) is in the middle-upper part of McKercher and du Cros’ (2002) typology. Otherwise, those two large proportions of cultural tourists (at NC and the GOJ) would be mis-categorised into either the serendipitous or the purposeful cultural tourist group. This mis-categorisation could cause confusion for government and tourism policy makers. Therefore, it can be said the new cultural tourist taxonomy provides a more accurate model for cultural tourist classification.

11.2.5 *Independence of the Two Dimensions of the Taxonomy*

In the analysis of the distribution of tourist numbers within the taxonomy matrices, there is some suggestion of a relationship between the causal dimension and the preference dimension. However, chi-squared tests for this fail to reject the null hypothesis of independence. The test results are as follows.

<table>
<thead>
<tr>
<th>Table 11.3 NC: Observed Data vs. Expected Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nottingham Contemporary</td>
</tr>
<tr>
<td>Preference-forming (86.11%)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Incidental</td>
</tr>
<tr>
<td>Preference-following (13.89%)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Sum</td>
</tr>
</tbody>
</table>
As shown in Tables 11.4 and 11.6, both the chi-squared test results are considerably smaller than the critical values; hence, in the case of both NC and GOJ, both of the null hypotheses are accepted at the 5% significance level, which means there is no significant difference between the observed data and the expected data and that the two dimensions of the taxonomy matrix are independent at both attractions.

### 11.3 Reconsideration of Definitions

In Chapter 1, some preliminary definitions were given. Following the development and application of the economic model, these can now be redefined. In the first instance, we consider ways of defining a cultural tourist.

To a first order, all the tourists found at the attraction are cultural tourists. However, it can be argued that a tourist is a cultural tourist only if their visit has a cultural cause,
i.e. they came to the destination because of the attraction. It could also be argued that a tourist is a cultural tourist only if the visit had a cultural consequence, i.e. was preference-forming. If a tourist’s visit has no cultural cause and no cultural consequence, then the definition of that tourist as a ‘cultural tourist’ can be questioned.

These considerations lead to four possible ways of sub-defining a cultural tourist.

1. A cultural tourist in the **causal sense**. The visit was purely or partially caused by a cultural attraction, i.e. intentional cultural tourist, purposeful cultural tourist, casual cultural tourist and sightseeing cultural tourist.

<table>
<thead>
<tr>
<th>Preference-forming</th>
<th>Serendipitous cultural tourist</th>
<th>Intentional cultural tourist</th>
<th>Purposeful cultural tourist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preference-following</td>
<td>Incidental cultural tourist</td>
<td>Casual cultural tourist</td>
<td>Sightseeing cultural tourist</td>
</tr>
<tr>
<td>Attraction not in causal chain</td>
<td>Attraction in causal chain but not alone</td>
<td>Attraction alone in causal chain</td>
<td></td>
</tr>
</tbody>
</table>

2. A cultural tourist in the **consequential sense**. The visit had a cultural consequence, i.e. serendipitous cultural tourist, intentional cultural tourist and purposeful cultural tourist.

<table>
<thead>
<tr>
<th>Preference-forming</th>
<th>Serendipitous cultural tourist</th>
<th>Intentional cultural tourist</th>
<th>Purposeful cultural tourist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preference-following</td>
<td>Incidental cultural tourist</td>
<td>Casual cultural tourist</td>
<td>Sightseeing cultural tourist</td>
</tr>
<tr>
<td>Attraction not in causal chain</td>
<td>Attraction in causal chain but not alone</td>
<td>Attraction alone in causal chain</td>
<td></td>
</tr>
</tbody>
</table>

3. A cultural tourist in the **strong sense**. The visit had both cultural causes and also cultural consequences, i.e. intentional cultural tourist and purposeful cultural tourist.
4. A cultural tourist in the **weak sense**. The visit is either causal or consequential, but not necessarily both, i.e. serendipitous cultural tourist, intentional cultural tourist, purposeful cultural tourist, casual cultural tourist and sightseeing cultural tourist.

The results at the two attractions imply the following percentages of cultural tourist visitors according to each of the above definitions.

**Table 11.7 Percentages of Cultural Tourist Visitors for the Four Possible Definitions**

<table>
<thead>
<tr>
<th>Cultural tourist definitions</th>
<th>NC</th>
<th>GOJ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Causal</td>
<td>52.22%</td>
<td>71.06%</td>
</tr>
<tr>
<td>Consequential</td>
<td>86.11%</td>
<td>99.12%</td>
</tr>
<tr>
<td>Strong</td>
<td>42.78%</td>
<td>70.62%</td>
</tr>
<tr>
<td>Weak</td>
<td>95.56%</td>
<td>99.56%</td>
</tr>
</tbody>
</table>

Logically, the largest percentage must be cultural tourists in the weak sense, and the smallest percentage must be cultural tourists in the strong sense. In the weak sense, roughly 19 out of 20 tourists at NC were cultural tourists. Almost all tourists at the
GOJ were cultural tourists in the weak sense. These results make only a minor numerical distinction between cultural tourists in the weak sense and the preliminary definition.

However, if a cultural tourist is defined in the strong sense, the results are very different. Nearly one-third of tourists at the GOJ were not cultural tourists in the strong sense. Fewer than half of tourists at NC were cultural tourists in the strong sense. Depending on the adopted definition of cultural tourist, cultural tourism, cultural tourist attraction and so on could be further defined accordingly.

11.4 Further Implications of the Economic and Cultural Impacts of NC and the GOJ

In Chapter 9, two ways of computing the economic impact are considered. In this section, the adjusted results of the economic impact are used for a more accurate comparison, as provided in Table 11.8.

| Table 11.8 Comparison of the Economic and Cultural Impacts of NC and the GOJ |
|-------------------|-----------------|-------------------|
| **Attraction**     | **Economic Impact (TV)** | **Cultural Impact (Jings) (LV +TV)** |
| NC                | £ 912,077        | 9,179,310          |
| GOJ               | £ 431,161        | 3,548,844          |
| NC/GOJ            | 2.12             | 2.59               |

As indicated in Table 11.8, Nottingham Contemporary has a much larger economic impact on the local economy and a greater cultural impact on local and tourist visitors than the GOJ. The economic impact of NC is more than twice as much as the economic impact caused by the GOJ, while the cultural impact caused by the NC is more than 2.5 times that of the GOJ. Therefore, NC has an absolute advantage in both economic and cultural terms when compared with the values of both impacts caused.
by the GOJ. However, the ratio of the cultural impact between two galleries (i.e. 2.59) is greater than the ratio of the economic impact (i.e. 2.12), which means the GOJ has a comparative advantage in terms of economic impact.

**Figure 11.5 The Impact Space of NC vs. GOJ**

In Figure 11.5, the positions of NC and the GOJ are plotted according to their results in Table 11.8. It provides the new impact space for NC and the GOJ.

As mentioned in Chapter 5, the cultural impact questions were tailored based on previous related literature, the galleries' character, history, etc. Finally, five culturally-related questions were chosen for the survey at NC, and six were included in the GOJ's questionnaires. This was because the character, themes, exhibits, history and experiences of the attracted visitors varies between these two attractions, and they do not necessarily have the same potential cultural impact on visitors.

Because the GOJ survey contains one more culturally-related question than the NC survey, it seems likely that the GOJ has a greater potential for gaining a larger cultural impact. However, according to the estimated cultural impact values in Table 11.8, NC actually has a greater culture impact than the GOJ. Therefore, this result confirms that putting more culturally-related questions in a survey does not mean it will necessarily
bring an increase to the cultural impact caused by an attraction. This also shows that the researcher should not be too concerned about the number of questions included in the questionnaires, as mentioned in the survey design section of Chapter 5.

One way to improve the economic and cultural impacts of a cultural attraction is by getting more visitors to visit the attraction; for example, studies of conjoint analysis related to how to improve the attraction and make it more interesting to visitors can be done. Alternatively, with the policy maker’s involvement, there is the possibility of providing a subsidy to reduce the entry fee. For example, if the government provides subsidies towards the entry fee for the GOJ, then a smaller fee may attract more visitors to come to Nottingham to visit the GOJ. Those extra visitors may increase the overall economic impact of the GOJ to the city of Nottingham and the cultural impact of the GOJ.

Although these issues may appear to be straightforward, there are outstanding questions which required further analysis. At the root of these issues is the idea of a marginal visitor. How much would one extra visitor add to the economic and cultural impacts of a given attraction? Firstly, the answer to this question depends on whether the marginal visitor is a local visitor to the attraction or a tourist visitor. The empirical results simplify the matter in one sense because there is no significant difference between the cultural impact on locals and tourists. However, an extra local visitor would have no effect on economic impact.

The second issue raises a problem about economic impact. An extra tourist visitor would increase economic impact by his expenditure multiplied by his probability uplift. The problem is that the expenditure and probability uplift for this hypothetical visitor are not known. Taking each of the two factors alone, the expenditure and probability uplift of the hypothetical marginal visitor can be estimated by the sample.
mean. His expenditure can be estimated by the average expenditure in the data for the attraction in question. Similarly, his probability uplift can be estimated by the average uplift for that attraction. Multiplying together these sample means, we appear to estimate the marginal value of a tourist visitor to the attraction. However, we know from the empirical results that there is a negative correlation between expenditure and probability uplift, so this method of multiplying the sample means would overstate the marginal economic impact. This bias can be avoided by taking the sample mean of the uplifted expenditure, as in the adjusted economic impact calculations in Chapter 9.

The two types of cultural impact that NC and the GOJ are creating are quite unlike each other, because the exhibits displayed in those galleries, their history and character and the experiences that can be gained from them are very different.

This statement leaves a question for policy makers, concerning the relative monetary values of 1 Jing of cultural impact. The cultural impact of NC is different from the cultural impact of the GOJ in terms of the ethos, but is it worth more or less? Going back to Table 11.8, suppose first that 1 Jing at NC is worth 10p and 1 Jing at the GOJ is also worth 10p. The total impact at NC is worth £912,007 + £0.10 * 9,179,310 = £1,829,938 per year. The total impact of the GOJ is £431,161 + £0.10 * 3,548,844 = £786,045 per annum. However, suppose that 1 Jing at NC is worth only 1p and 1 Jing at the GOJ is worth £1. The value of the total impact at NC is then £1,003,800 and the total impact at the GOJ is worth £3,980,005. This shows that the model has made it possible to compare one attraction with another, and to measure the total impact of each attraction, except for the question of the value of a Jing.

\[ \text{In this study, the Total Impact = Economic Impact + Monetary Value of Cultural Impact.} \]
The issues here can be set out diagrammatically. The positions of NC and the GOJ in impact space and the economic, cultural and total impacts of the GOJ are as follows.

**Figure 11.6 The Impact Space of NC vs. GOJ-I**

In general, if $E$ is the economic impact and $J$ is the cultural impact, then $E + \omega J$ is the total impact where $\omega$ is the monetary value of a Jing. This is shown in Figure 11.6 for the GOJ. On the vertical axis (which is measured in £s), $E_{GOJ}$ is the economic impact of the GOJ. The cultural impact (in Jings) is shown as $J_{GOJ}$ on the horizontal axis. Multiplying this by $\omega_{GOJ}$ converts the cultural impact into £s. The result is the amount $\omega_{GOJ}J_{GOJ}$, which is the distance between the two points on the vertical axis.

Doing the same geometry for NC, we have the following.
The slopes of the two diagonal lines are the \( \omega \) values, i.e. the actual values of a Jing at each of the two attractions. We do not know these so the slopes used in the diagrams are assumed values. With the assumed slopes in Figure 11.7, NC has a larger total impact than the GOJ. However, this is not necessarily so.

**Figure 11.7 The Impact Space of NC vs. GOJ-II**

**Figure 11.8 The Impact Space of NC vs. GOJ-III**
In Figure 11.8, the assumed value at the GOJ has been increased and the assumed value at NC has been reduced. The result is that the total impact of the GOJ is now greater than that of NC. This explains why NC can have a bigger economic impact and bigger cultural impact (in Jings) than the GOJ but a smaller total impact. This can happen only if the actual monetary value of a Jing at the GOJ is sufficiently large relative to that at NC.

However, to attach a monetary value to 1 Jing at any attraction is not simple. A comparison can be made with the problem in financial markets of measuring the value of an option. An important ingredient in valuing an option is the volatility of the price of the asset, usually the variance of the price. Should this be calculated over the past 50 days, or 40 or 60 or 100 days? These can give very different results. The way around this in valuing an option is to calculate the implied volatility. This is the amount of volatility that makes the value of an option equal to its market price. This helps because the question 'what is the volatility?' is replaced with the question 'is the volatility greater or less than this implied volatility?' Instead of having to find a number, the valuer needs only to make a comparison. In valuing a Jing, there is the corresponding idea of the implied value of a Jing.

In the case of an option, a necessary part of working out an implied volatility is the market price which is a fixed point of reference. Similarly, in working out the implied value of a Jing there is need for a fixed point of reference. This can be provided by the idea of a targeted total impact. The total impact of an attraction is its economic impact plus the monetary value of its cultural impact. The monetary value of the cultural impact is the cultural impact in Jings multiplied by the value of a Jing at that attraction. Now suppose that a target is set for the total impact. The implied value of a Jing can be defined as the value of a Jing which would make the actual total impact
equal to the targeted total impact. As in the case of an option, the problem of calculating a value is reduced to the problem of making a comparison.

However, in the first place there is the question of where a target comes from. In some cases this could be solicited from policy makers. For example, if policy makers are considering whether or not to keep an attraction open, the question might be put to them of how big a total impact would be necessary to justify keeping it open. The same might apply to the owners of a privately-owned attraction. However, for the purposes of the following analysis all that matters is that a target be hypothesised. The targeted total impact is essentially a reasoning device. In fact, the final conclusion is that a comparison can be made independently of the specific value of the targeted total impact.

If a cultural attraction is judged according to its total economic and cultural impacts, the implied value of a Jing can be defined as the value that makes the actual total impact of the attraction equal to the targeted total impact.

The equations below provide a computational method of calculating the implied value of a Jing at a cultural attraction.

\[
t_i = E_i + C_i
\]

(11.1)

\[
C_i = J_i \times \omega_i
\]

(11.2)

The meanings of each component are as follows:

- \( t_i \) is the total impact of attraction \( i \)
- \( E_i \) represents the total economic impact of attraction \( i \)
- \( C_i \) represents the total cultural impact of attraction \( i \)
- \( J_i \) is the total cultural impact measured in Jings
\( \omega_i \) is the value of a Jing at attraction \( i \) (N.B. \( \omega_i \) is measured in monetary value, i.e. £ or $)

From equation (11.1) and equation (11.2), equation (11.3) can be derived.

\[ t_i = E_i + J_i \cdot \omega_i \]  

(11.3)

By re-arranging equation (11.3), a value for \( \omega_i \), shown in equation (11.4), is obtained.

\[ \omega_i = \frac{t_i - E_i}{J_i} \]  

(11.4)

Now, suppose that for each attraction there is a targeted total impact. Assuming \( t_i^* \) is the targeted or the standard total impact (in monetary value), then equation (11.4) can be written as:

\[ \omega_i^* = \frac{t_i^* - E_i}{J_i} \]  

(11.5)

By following equation (11.5), the implied monetary value of a Jing \( \omega_i^* \) can be calculated.

This analysis can be represented diagrammatically as follows.
In Figure 11.9, \( t^* \) is the targeted total impact. The slopes of the diagonal lines now have a new meaning. The slopes now represent the implied value of a Jing at each attraction. The implied value of a Jing at the GOJ is the slope that makes the total impact of the GOJ equal to the targeted total impact \( t^* \). The same applies to NC. The slope of the diagonal from the point NC also makes the total impact of NC equal to the targeted value.

In previous diagrams (11.6, 11.7 and 11.8) the slopes of the diagonal lines were the actual values of Jings (i.e. \( \omega \)'s). In Figure 11.9, the slopes are implied values \( \omega^* \)'s. Although \( \omega \)'s are unknown, \( \omega^* \)'s can be calculated from the measured economic impacts (in £s) and cultural impacts (in Jings) once a targeted total impact (\( t^* \)) has been assumed.

The following two diagrams show how the implied values of a Jing relate to the targeted total impact. In Figure 11.10, the targeted total impact (\( t^* \)) is increased.
The diagonal lines are now steeper. This has to be so, so that the diagonals reach the higher point $t^*$. This means that the implied value of a Jing at both attractions has to increase so that the higher target is met. In Figure 11.11, $t^*$ is reduced and both $\omega$'s are reduced accordingly.
For the purpose of illustration, \( t_1 \) is assumed to be £2,000,000 per annum. As for NC, using the results of economic and cultural impacts collected at NC to substitute the corresponding unknown factors, it gives the equation (11.6) and result below:

\[
\omega_{NC}^* = \frac{\£2,000,000 - \£912,077}{9,179,310} = 11.85 \text{ pence} \quad (11.6)
\]

Following the same equation (11.5), and substituting the corresponding unknown factors by using the results collected at the GOJ, the equation below is given.

\[
\omega_{GOJ}^* = \frac{\£2,000,000 - \£431,161}{3,548,844} = 44.21 \text{ pence} \quad (11.7)
\]

As results shown in equations (11.6) and (11.7), the implied value per Jing at the NC is 11.85 pence, and at the GOJ, the implied value is 44.21 pence per Jing.

According to the results in Table 11.8, the number of Jings gained by visitors means the cultural impact of NC is much larger than the GOJ’s. However, as discussed before, the cultural experience at both attractions are different from each other. If the cultural experience at NC is worth 11.85 pence per Jing, and at the GOJ is worth 44.21 pence per Jing, then two attractions would have equal total impact.

\[
\frac{\omega_{GOJ}^*}{\omega_{NC}^*} = \frac{44.21 \text{ pence}}{11.85 \text{ pence}} = 3.73 \quad (11.8)
\]

According to equation (11.8), the implied value per Jing gained at the GOJ is worth nearly four times as much as at NC. The question now raised is ‘Does the value of what each visitor gains at the GOJ is 3.73 times as much per Jing than each individual gets at NC?’.

The above discussion has simplified the decisions that the policy makers need to make, in order to evaluate total impact (i.e. economic impact + cultural impact).
caused by the attractions. For the case of the GOJ and NC, the only two questions that policy makers need to answer are:

1. Do they think one Jing at the GOJ is worth more than one Jing at NC?
2. If the answer is ‘Yes’, then it leads to a further question that the policy makers need to ask, which is ‘Do they think one Jing at the GOJ is worth more than 3.73 times one unit of Jing gained at NC’.

If the answer to either of these questions is ‘No’, then that gives the answer for the impact comparison between those two attractions: the total impact of NC is worth more than that of the GOJ. The value of a Jing includes all aspects of the value of a cultural experience that policy makers choose to consider, the social value as well as the value to the individual. For example, someone who puts a high value on people being informed about historical facts might put a high value on a Jing at the GOJ. Someone who puts a high value on knowledge of art might put a large value on a Jing at NC.

This can be illustrated by returning to the diagrams.
Figure 11.12 The Impact Space of NC vs. GOJ-VII

Corresponding to Figure 11.12, the following equations can be derived:

The implied values of a Jing are

\[ \omega_{GOJ}^* = \frac{|AG|}{|At^*|} \]

\[ \omega_{NC}^* = \frac{|AC|}{|At^*|} \]

So the ratio of implied values is

\[ \frac{\omega_{GOJ}^*}{\omega_{NC}^*} = \frac{|AG|}{|AC|} \]

D is the point on line \( At^* \), which let \( |AD| = |AC| \)

\[ \therefore |BG| = |AD| = |AC| \]

\[ \therefore \frac{\omega_{GOJ}^*}{\omega_{NC}^*} = \frac{|AG|}{|AC|} = \frac{|AG|}{|BG|} \]

39 For convenience of notation, points N and G represent NC and the GOJ respectively.
The ratio of implied values of a Jing is the slope of the line AB. Figure 11.12 constructs the line AB, so that its slope shows geometrically the ratio of implied values of a Jing at both attractions. This makes it clear how that ratio depends on the economic and cultural impacts of each attraction. Changing the economic impact or the cultural impact of an attraction changes the ratio of implied values. This can also be seen in Figure 11.12. If the economic impact of NC increases and the cultural impact (in Jings) remains the same, then point N moves to N'. If \( t^* \) (targeted total impact) also remains the same, then the line AB gets steeper and the ratio of \( \omega_{GOJ}^*/\omega_{NC}^* \) increases. If the cultural impact of NC (in Jings) increases, while its economic impact remains the same, then point N moves to point N''. Keeping \( t^* \) the same as before, then the line AB also gets steeper and the ratio of \( \omega_{GOJ}^*/\omega_{NC}^* \) also increases.

Policy makers have different priorities between various cities, regions, or nations, therefore their strategic decisions will be made differently. However, when it comes to the decision-making process, a comparative process is much easier than evaluating objectives. The empirical results are in favour of NC. NC has a larger total impact than the GOJ unless the value of a Jing at the GOJ is much greater than a Jing at NC, by a factor of about 4. To illustrate the implications of the method, suppose that these two attractions were both receiving (equal) public subsidies, and that it is now necessary to stop one of the subsidies. The choice of which one to stop could be based on the attraction with the bigger total impact. The modelling tells the decision maker that NC has the greater total impact unless the value of a Jing at the GOJ is about four times that at NC. It would then be up to the decision maker to judge whether this test is satisfied. If the decision maker has no reason to say which attraction has a greater value of a Jing, then they should be given equal values, resulting in NC having the bigger total impact. If the value of a Jing at NC is greater than at the GOJ, the same
result applies. Even if a Jing at the GOJ is worth more than a Jing at NC, the result will be the same unless a Jing at the GOJ is worth four times as much as at NC.

Suppose that a policy maker knows about the economic impacts but not the cultural impacts. This would cause two problems. The first is that NC appears clearly to have the larger total impact. As the above paragraph shows, this is not the case when both impacts are taken into account. If the value of a Jing at the GOJ is sufficiently large relative to NC, then the GOJ will have the greater total impact. Taking both impacts into account, NC has an advantage, but it is not necessarily an overwhelming advantage. The second problem is that the economic impact alone understates the total impact. If NC costs £1,000,000 per annum to run, then the economic impact alone (£912,077 per year) might fail to justify this, but the total impact might justify it.

The above arguments are based on targeted total impacts. However, it is not immediately obvious what the target is or should be: that is a matter for policy makers. However, equation (11.5) shows the relationship between the implied value of a Jing ($\omega_i^*$) and the targeted total impact ($t_i^*$). This relationship is linear, and its intercept $(-E_i)$ and slope $\left(\frac{1}{I_i}\right)$ depend on the economic impact in pounds ($E_i$) and the cultural impact in Jings ($I_i$) (per annum). Substituting these parameters into (11.5) for the GOJ and for NC the relationships are as follows.
Table 11.9 Targeted Total Impacts and the Implied Values of Jings

<table>
<thead>
<tr>
<th>$t^*$=targeted total impact (million £)</th>
<th>$\omega_{NC}^*$ (pence)</th>
<th>$\omega_{GOJ}^*$ (pence)</th>
<th>Ratios of $\omega_{GOJ}^<em>/\omega_{NC}^</em>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>11.85</td>
<td>44.21</td>
<td>3.73</td>
</tr>
<tr>
<td>3</td>
<td>22.75</td>
<td>72.39</td>
<td>3.18</td>
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</tr>
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<td>273.31</td>
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<tr>
<td>42</td>
<td>447.61</td>
<td>1171.33</td>
<td>2.62</td>
</tr>
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</table>

Table 11.9 demonstrates that when the total economic impacts of NC and the GOJ are fixed and the assumed (targeted) total impact is increasing, the implied values of Jings at NC and the GOJ both also increase, however, the ratio of $\omega_{GOJ}^*/\omega_{NC}^*$ will decrease.
Figure 11.13 The Values of Jings at NC and the GOJ

Figure 11.14 The Ratio of $\omega_{GOJ}^*/\omega_{NC}^*$

Figure 11.14 indicates that ratio of $\omega_{GOJ}^*/\omega_{NC}^*$ decreases, while the targeted amount of total impact increases. However, the marginal changes of the ratio are getting smaller as the curve tends asymptotically to a positive value. The following theorem based on equation (11.5) shows that this is indeed so.
11.5 A Theorem about Economic and Cultural Impacts

This section explains the theorem development of the cultural tourism impact, and its rationale and applications.

**Theorem**

∀ i and k, as the targeted total impact tends to infinity,

\[
\frac{\omega_i^*}{\omega_k^*} \rightarrow \frac{J_k}{J_i}
\]

In other words, the ratio of the implied values of a Jing tends to the reciprocal of the corresponding ratio of measured cultural impacts (in Jings).

**Proof**

\[
\omega_i^* = \frac{t_i^* - E_i}{J_i}
\]

\[
\omega_k^* = \frac{t_k^* - E_k}{J_k}
\]

\[
\frac{\omega_i^*}{\omega_k^*} = \frac{t_i^* - E_i}{J_i} \times \frac{J_k}{t_k^* - E_k}
\]

\(t^*\) is the assumed (targeted) total impact.

Let \(t_i^* = t_k^* = t^*\), then

\[
\frac{\omega_i^*}{\omega_k^*} = \frac{J_k}{J_i} \times \frac{t^* - E_i}{t^* - E_k}
\]

As \(t^* \rightarrow \infty\)

\[
\frac{t^* - E_i}{t^* - E_k} \rightarrow 1
\]

\[
\therefore \frac{\omega_i^*}{\omega_k^*} \rightarrow \frac{J_k}{J_i}
\]
Corollary

Asymptotically,

\[ \omega^*_i J_i \]

is the same \( \forall i \).

Proof

From the theorem, at \( t^* = \infty \)

\[ \omega^*_i J_i = \omega^*_k J_k \]

To understand the above results, begin by observing that as \( t^* \) tends to infinity, the economic contributions become negligible. All that matters is the value of the cultural impacts. Next, keep in mind that the targeted impacts (now the targeted cultural impacts) are equal at both attractions, \( t^* \). In the most general case, the value of the cultural impact of attraction \( i \) is \( \omega_i J_i \). If that impact is equal to the targeted \( t^* \), then this becomes \( \omega^*_i J_i \). In other words, \( \omega^*_i J_i = t^* \). This is so for all attractions. This explains the corollary, which is equivalent to the theorem.

When \( t^* \) is so large that the economic contribution can be neglected, two attractions meeting the target will have equal cultural impacts. The cultural impact of each attraction is its impact in Jings times the implied value of a Jing for that attraction. Therefore, an attraction with a large impact in Jings needs only a small implied value of a Jing. Correspondingly, an attraction with only a small impact in Jings must have a large implied value of a Jing so as to reach the target.

The practical significance of the theorem is as follows. In comparing the total impacts of any two attractions, if the total impact of attraction \( i \) is greater than the total impact of attraction \( k \), the value of a Jing at attraction \( i \) must be sufficiently large. For
example, if the value of a Jing at NC is £0 and the value of a Jing at the GOJ is worth £1, then the total impact of NC is £912,077 and the total impact of the GOJ is £3,980,005. The total impact at NC is less than the total impact at the GOJ. On the other hand, if the value of a Jing at NC is 50p, the total impact there is £5,501,732, which is greater than the total impact at the GOJ. So the total impact at NC is greater than the total impact at the GOJ only if the value of a Jing at NC is sufficiently large.

The question is how large is sufficiently large? This question was addressed in Section 11.4, however, the way it was addressed there depended on an assumed value for the targeted total impact. There is the problem with this that policy makers may not know, or may not agree with, the targeted total impact. What the theorem and corollary now tell us is that whatever the targeted total impact, the ratio of the implied values of Jings ($\omega_{GOJ}/\omega_{NC}$) can never be less than 2.59. Therefore, if the value of a Jing at the GOJ is less than 2.59 times the value of a Jing at NC, NC will have the greater total impact. It is necessary to choose a target for total impact only if that ratio is greater than 2.59. For example, if the target is £10,000,000 then the required ratio of values of Jings is 2.72. If the target is only £2,000,000 then a ratio of 3.73 is required for the total impact of NC to be larger than that of the GOJ. In either case (and in all cases), if the ratio is less than 2.59 then the total impact of NC is the greater, irrespective of the target total impact. (In fact, irrespective of whether a target is even known or agreed.)

11.6 Summary

This chapter discusses and compares results of the visitor number breakdowns in the taxonomy for NC and the GOJ. The results emphasize the importance of the newly introduced category, 'intentional cultural tourist'. On the basis of the taxonomy and the empirical results, some new definitions of the idea of a cultural tourist have been
suggested. These address the question of how being a cultural tourist (as opposed to any other kind of tourist) depends on a cultural cause and/or consequence of the visit. The theory and method of measuring economic and cultural impacts of cultural attractions allows any attraction to be located in the impact space. A single monetary measure of the total (economic plus cultural) impact of an attraction can then be calculated if a unit of cultural impact (a Jing) is given a monetary value. Although this is a question for policy makers, the theory assists the decision making process using the idea of the implied value of a Jing, which can be calculated from the measured economic and cultural impacts and an assumed targeted total impact. To compare the total impacts of two attractions, the policy maker does not need to decide on the value of a Jing, but only on its value relative to the implied value.
Chapter 12 Conclusions

12.1 Review of Research Objectives

As reviewed in Chapter 2, the gaps in the relevant literature are the following: only limited numbers of cultural tourist typologies exist, for example, Bywater (1993), Silberberg (1995), Richards (1996a), McKercher and du Cros (2002). Of the existing ones, some were purely based on theoretical assumptions, without empirical testing. This reduces the level of validity and reliability of these typologies (Smith, 1990; Mehmetoglu, 2004). The majority of the typologies only focus on the behaviour of individual tourists, rather than considering the wider context of their behaviour, for example, economic and cultural influences (Lowyck et al., 1992; Sharpley, 1999; Mehmetoglu, 2004). Moreover, most of the typologies do not explain how and why an individual tourist becomes or belongs to a particular type, nor how they may change type (i.e. the tourist’s behavioural type was treated as static) (Seaton, 2002; Mehmetoglu, 2004; Swarbrooke and Horner, 2006). Some typologies (Yiannakis and Gibson, 1992) are over-descriptive or in some (Cohen, 1972; Pearce, 1982) the classified groups overlap with each other. Due to the difficulty of quantifying the cultural impacts of tourism, only very limited empirical studies can be found in the literature. The research objectives of this study were identified based on the gaps in the relevant literature. This research has made various contributions, to the literature, on both the theoretical and empirical side.

The focus of this thesis is on modelling the causes and measuring the consequences of cultural tourism. Among the parts of the literature on which it is based it has built especially on the pivotal fundamental theories provided in the following three key papers: McKercher and du Cros’s (2002) cultural tourist typology, Sen’s (1977; 1982; 1983) meta-preferences and Young et al.’s (2010) causal chain model.
Referring to the research objectives stated in Chapter 1, the research has:

1. Developed a better understanding of cultural tourism by economic modelling of the causes and consequences of cultural tourism (in Chapters 4, 8 and 9);
2. Developed a method of measuring and combining the economic and cultural impacts caused by cultural attractions (in Chapters 4, 6, 9, 10 and 11);
3. Applied the evaluation method to two cultural attractions: Nottingham Contemporary and the Galleries of Justice in Nottingham (in Chapters 6, 7 and 8).

12.2 Research Objective One

The newly developed cultural tourist taxonomy is the key for modelling the causes and measuring the consequences of cultural tourism, created by integrating and enhancing the essence of the key papers together.

The new cultural tourist taxonomy confirms the main framework of McKercher and du Cros' (2002) typology to a degree. However, it makes it more comprehensive by adding one more category (i.e. intentional cultural tourist) in the upper horizontal dimension of the taxonomy. According to the empirical results of the cultural tourist distributions in the taxonomy at NC and the GOJ (see Chapter 9), the intentional cultural tourist is an extremely important type that should be added to the cultural tourist classification/taxonomy, as it is the second largest group of cultural tourists at NC (44.74%) and at the GOJ, the intentional cultural tourist is the largest group (31.11%). The empirical evidence proves the new cultural tourist taxonomy more accurately classifies cultural tourists. For instance, McKercher and du Cros' (2002) typology misallocates the intentional cultural tourist either into serendipitous cultural tourist or purposeful cultural tourist.
In order to provide a solid economic explanation, which clarifies why it is necessary to classify cultural tourists into those six defined categories, Sen's (1977; 1982; 1983; 2002) meta-preference theory and Young et al's (2010) causal chain model were incorporated into the taxonomy. This enables the new taxonomy to explain both the causes and consequences of cultural tourism.

In terms of the causes of cultural tourism, the causal chain model in the new taxonomy helps to position the types of cultural tourist in the horizontal dimension by measuring the role of the cultural attraction in causing the tourist visit to the destination. The visitors to the destination can be classified in terms of three categories: (1) The cultural attraction was not relevant to the visits to destination (i.e. serendipitous and incidental cultural tourists); (2) The cultural attraction was the only cause to the visit to destination (i.e. purposeful and sightseeing cultural tourists); (3) The cultural attraction partially caused the visit to destination (i.e. intentional and casual cultural tourists). There are two aspects to the consequences of cultural tourism. By adapting the causal method, the economic impact of an attraction can be assessed. The cultural impact of a visit on each individual can also be measured by distinguishing cultural tourists into preference-following (i.e. incidental, casual and sightseeing cultural tourists) and preference-forming (i.e. serendipitous, intentional and purposeful cultural tourists).

The new taxonomy developed in this research is the first cultural tourist taxonomy in the literature which not only classifies the various types of cultural tourists, but also does this using fundamental distinctions based on economic theory.

Preference-forming visitors are visitors who changed their preference by gaining a certain quantity of Jings (the units of cultural capital) from their visits to cultural attractions. Preference-following visitors are visitors who did not change their preference after their visits to cultural attractions, not gaining enough Jings.
12.3 Research Objective Two

The second research objective achieved in this study is the development of a method for measuring and combining the economic and cultural impacts caused by cultural attractions.

The method of assessing the economic impact of cultural attractions is based on the causal chain model. As discussed in Chapter 9, the entire expenditure of each cultural tourist visitor within the destination cannot be used to account for the economic impact of the attraction. The horizontal dimension of the taxonomy that embodies the causal chain model enables researchers to achieve this through investigating each tourist's uplift probability derived from the attraction ($\Delta p=ck$, where $c$ and $k$ can be calculated using the survey results) and then estimating the amount of expenditure within the destination that can be ascribed to the attraction by calculating the product of each tourist visitor's expenditure and his/her probability uplift caused by the attraction.

This method of evaluating the economic impact has improved the approach used in Fernandez-Young & Young (2008) and Young et al (2010), because it takes the significant negative correlation of each individual's uplift probability and expenditure per head/group into account, and thus avoids overestimation. For future evaluation of economic impact, the above negative correlation factor should definitely be taken into consideration by researchers, as it significantly influences the accuracy of results.

This method of measuring the cultural impact is a new contribution to the literature, as it provides a way to quantify the complex concept of cultural impact. The study develops the distinction between preference-following and preference-forming, which are derived from Sen's (1977; 1982; 2002) meta-preference theory. It enables us to
identify the consequences of the cultural experience for each individual resulting from the visit to an attraction. The overall annual cultural impact caused by an attraction is the product of the average cultural capital gained per visitor and the annual number of visitors.

The research also suggests that if, in the long term, policy makers can apply an appropriate monetary value per Jing for each cultural attraction, then the cultural and economic impacts can both be evaluated monetarily and compared between attractions, because they would be based on the same method of measurement.

The new evaluation methods also meet the three principles for the measurement validity set by the WTO, which are relevance, coverage and accuracy (Frechtling, 2006). This achieved research objective enables policy makers to evaluate comprehensively the overall impact of each attraction and locate the attraction in the cultural space (illustrated in Chapters 1 and 11), by taking both economic and cultural impacts into account.

In future tourism research, the researchers who is interested in designing (cultural) tourism typologies (e.g. McKercher and du Cros, 2002; Bywater, 1993; Silberberg, 1995; Richards, 1996a) should not only classify cultural tourists into various categories by providing solid and clear explanation when they create new typologies, but also consider tourists’ behaviour in a wider context (e.g. economic, cultural and social influences).

12.4 Research Objective Three

The third research objective saw this method successfully applied to two cultural attractions in Nottingham: Nottingham Contemporary and the Galleries of Justice. The collected empirical testing results of the economic and cultural impacts (Chapters
9 and 10) at the two attractions have demonstrated the feasibility, validity, and practicability of the evaluation methods (i.e. economic impact, cultural impact and the combined impact) based on the new cultural tourist taxonomy.

Comparing the probability uplifts of NC (i.e. 0.23) and the GOJ (i.e. 0.37) with the previous empirical studies in Young et al (2010)\textsuperscript{42}, Fernandez-Young & Young (2008)\textsuperscript{43} and Anton et al (2009)\textsuperscript{44} shows that the probability uplifts collected in this research study fall into the expected range, according to previous studies. Again, this assures the applicability and reliability of this new evaluation method to cultural tourism.

The new cultural tourist taxonomy is not only supported by solid economic theories, but also has passed two empirical tests. This means the method developed in the study is a universal approach that can be applied to all cultural tourism destinations, thereby helping to assess how effective newly implemented government and marketers' investment policies might be.

For future tourist typology development, researchers should not only consider what theoretical assumptions the typologies and methods are based on, but also how practical and feasible they are. Therefore, empirical testing is a crucial task to identify applicability and practicality of new designed typologies and evaluation methods.

\textsuperscript{42} Young et al (2010): the Pumpkin Festival-caused uplift probability to visit Spalding is 0.38; The Christmas Event in Loughborough: 0.58; County Museum in Rutland: 0.30; Richard Hawley and All Angels concert in Buxton: 0.88.

\textsuperscript{43} Fernandez-Young & Young (2008): screen products-increased probability uplift of visits to Oxford is 0.16, and to London Eye is 0.14.

\textsuperscript{44} Anton et al (2009): the uplift probability caused by Ryanair flights to the Costa Daurada is 0.29.
12.5 Limitations and Directions for Future Research

The research has succeeded in developing a theoretically-based and practically applicable method for measuring and combining the economic and cultural impacts of cultural attractions. However, there are limitations to the research which indicate possibilities and directions for future research.

12.5.1 Further Applications and Benchmarks

Based on the newly developed theoretical model presented in this study, the empirical part of this research can be replicated at other attractions within the city of Nottingham. By collecting more values for the economic and cultural impacts caused by other attractions in Nottingham, it could provide valuable information on the economic effectiveness and cultural influences of tourism development in the evaluated area (the city of Nottingham). It could thereby help the policy makers to understand whether further tourism investment and development should be encouraged, and how, to deliver a balanced society. If research based on this were to provide substantive answers, then local government could compare the results among the attractions and tailor strategy and planning (e.g. further investment, cut-backs, promotions, etc.) accordingly.

The same research method could also be applied to larger regions, for example, the East Midlands area, England, the UK or even Europe. In this study, more than 95% of the interviewed tourists at NC and the GOJ were domestic tourist visitors. In the case of cities which attract a higher proportion of international visitors, such as London, Manchester and Edinburgh, the attractions within the cities would get a higher proportion of international tourists. By replicating this research method, the differences between domestic and international tourists in terms of economic and
cultural impacts could be evaluated separately and accurately. Thus, governments and marketers could tailor future strategies for the two different tourist groups.

Once this type of evaluation has been replicated in many other attractions in other cities, then 'Benchmarking' can be considered. The government and the tourism bureau could set up a standard (e.g. the British Museum) as a benchmark for designing cultural impact questions and determining which cultural factors should be measured at different kinds of cultural attractions. The benchmark would define the kind of culturally-related questions for tourists at each particular type of attraction. Guidelines would also enable the collected results to be compared across various attractions within a city, region or country.

The quantity of cultural impact people can gain from visiting cultural attractions is also valued at a certain number of Jings (as discussed in Chapter 11). If government or policy makers can convert this into a monetary value by applying an appropriate monetary value per Jing at each attraction\(^45\), then the cultural and economic impacts can both be evaluated monetarily and easily compared between attractions, because they would be based on the same measurement.

In this way, policy makers could comprehensively evaluate the overall impact caused by each attraction, by taking both economic and cultural impacts into account, before making any further decisions about the cultural attraction.

During a recession, to ensure appropriate investment and avoid losses, governments will be extremely prudent in cutting back spending on cultural attractions, resulting in the closure of some. However, this research study provides a method of measuring and predicting the cost that flows from closing down cultural attractions. Once a

\(^45\) For example, one Jing at the British Museum could be worth £0.50, but at NC one Jing could be worth £0.30.
government knows the estimated economic impact caused by a particular attraction, policy makers can make their strategic decisions, such as cutting back spending, closing down, or investing more for further development. In addition, the estimated cultural impact also provides valuable information for any government which believes a destination's cultural image is important for its long-term economic development.

Miller (2009) reported that during the recent recession, more families decided to choose cheaper but culturally stimulating ways to enjoy their holidays. This has meant that visiting cultural attractions in the UK instead of going abroad for holidays has become a popular option, and the number of people visiting cultural attractions in London increased by 20% from 2008-2009. This evidence suggests that even during a recession, if policy makers implement appropriate strategies and investment in cultural attractions, they can make them successful, if more people choose to spend a cheap day out visiting a place that is meaningful and culturally enriched. This could be a valuable opportunity for government to give an appropriate monetary value per Jing for each attraction, and use the economic and cultural impacts evaluation method discussed in this study to assess the overall impact caused by cultural attractions in any destination.

12.5.2 Sectoral Expenditure Breakdowns

This study evaluated the annual economic impact to the city of Nottingham caused by NC and the GOJ separately, based on the causal chain model. However, the estimated economic impact value is an aggregated contribution to the economy, and does not provide breakdowns of which economic impact should be attributed to which industry. In other words, the economic impact results do not show sectoral expenditure breakdowns.
Because only one researcher was involved in data collection within a limited time frame, detailed expenditures for each industrial sector were not obtained. In future research, additional detailed questions related to expenditure could be used to obtain a breakdown of sectoral expenditure from visitors.

This extra data could provide policy makers with more detailed information on the scale of economic impact that an attraction has on a particular industry. Once policy makers understand this, then further cooperation strategies could be initiated between the industry and the cultural attraction. For instance, business owners in the food industry could negotiate with the marketing team at the cultural attraction to develop a joint promotion agreement, which would assist both parties to increase revenues from additional visitors.

For example, the GOJ could promote cafes, restaurants, bars and shops nearby, and vice versa. By means of these promotions, joint discounts\(^\text{46}\) could also be given to the customers as an extra incentive to motivate them to visit. This might have the effect of increasing the number of visitors to the GOJ, since some tourists who came to Nottingham for other reasons and dined at a restaurant nearby might have never heard of the GOJ, but by hearing of it through a promotion at a restaurant might then decide to visit, especially with a discounted price. Of course it would be important to ensure the discount offer would provide benefits to both parties through economies of scale.

In the same way, some tourists who visited the GOJ might initially plan to return home for dinner, but if they were offered a good deal, they might stay in Nottingham for a meal. In that case, the deal would not only benefit the GOJ and the collaborating restaurants, but also the city of Nottingham, by increased overall economic impact.

\(^{46}\) For instance, by showing the GOJ’s ticket, customers could get 20\% off their food bill on the day at a restaurant nearby. Or with a receipt from an adjacent café, visitors at the GOJ could get a small souvenir or a discounted price for the admission fee.
Therefore in future research surveys visitors’ sectoral expenditure data should also be collected.

**12.5.3 Data Collection Period**

For NC and the GOJ, data for visitors’ spending was gathered during the period March to June 2010. Because data was not available for a full 12 months, from March 2010 to February 2011, the collected spending data during that period was used to extrapolate to a 12 month period.

In winter, people generally have fewer reasons to travel to Nottingham and fewer activities in the city and therefore may spend less money there. They may be more likely to visit cultural attractions (increased probability uplift). In summer, they may be more inclined to come to Nottingham for shopping, long weekends and the nightlife, so they may stay in the city longer and spend more. If they have more reasons to come to Nottingham, tourist visitors at the attractions may also have larger background probabilities for their visit. Whether there is any seasonal influence on the visiting rate and background probability at NC and the GOJ or other cultural attractions can be studied in further research.

**12.5.4 Additional Applications**

In future studies, researchers can apply the taxonomy to analyse the impacts of cultural tourists who have different ethnic and cultural backgrounds, various occupations, income and levels of education. The results can assist governments and marketers to target different market segments.

The evaluation methods can also be used to investigate whether tourist attractions should be clustered (e.g. Berlin’s Museum Island) to increase tourism uplift.
probability of visits. The results can provide a better guidance for government in
terms of making decisions on how to locate and group tourist attractions.

12.6 Concluding Remarks

In Chapter 1, there was a hypothetical diagram locating cultural tourist attractions in
impact space. Although the attractions were real, the economic and cultural impacts
were only for illustration. In Chapter 11, there are impact space diagrams showing
real estimated economic and cultural impacts which were measured in the surveys and
then combined to show each attraction’s total impact.

There are many ways in which the method that has been developed could have been
done differently. For example, the expenditure at the destination could have been
defined more widely. A different source of possible dimensions of the cultural impact
could have been used.

However, the most important proposition that this research has demonstrated is that it
is possible to explain the causes and the consequences of cultural tourism in a formal
economic way, and to estimate simultaneously the economic and cultural impacts of a
cultural tourist attraction. It follows that policy decisions about cultural attractions can
be based on an assessment of total impact that includes a cultural component.

An economic contribution to an attraction (including subsidy or funding) can be
balanced against not only the economic contribution that the attraction makes to the
destination, but also an economic evaluation of the contribution that the attraction
makes to society’s stock of intangible cultural capital. Perhaps the possibility of doing
this will eventually lead to a more complete appreciation of the value of such
attractions and, through them, of our culture.
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Appendix I: 50 Socio-cultural Impacts List

50 Socio-cultural Impacts List of Participation in the Arts

1. Increase people’s confidence and sense of self-worth
2. Extend involvement in social activity
3. Give people influence over how they are seen by others
4. Stimulate interest and confidence in the arts
5. Provide a forum to explore personal rights and responsibilities
6. Contribute to the educational development of children
7. Encourage adults to take up education and training opportunities
8. Help build new skills and work experience
9. Contribute to people’s employability
10. Help people take up or develop careers in the arts
11. Reduce isolation by helping people to make friends
12. Develop community networks and sociability
13. Promote tolerance and contribute to conflict resolution
14. Provide a forum for intercultural understanding and friendship
15. Help validate the contribution of a whole community
16. Promote intercultural contact and co-operation
17. Develop contact between the generations
18. Help offenders and victims address issues of crime
19. Provide a route to rehabilitation and integration for offenders
20. Build community organisational capacity
21. Encourage local self-reliance and project management
22. Help people extend control over their own lives
23. Be a means of gaining insight into political and social ideas
24. Facilitate effective public consultation and participation
25. Help involve local people in the regeneration process
26. Facilitate the development of partnership
27. Build support for community projects
28. Strengthen community co-operation and networking
29. Develop pride in local traditions and cultures
30. Help people feel a sense of belonging and involvement
31. Create community traditions in new towns or neighbourhoods
32. Involve residents in environmental improvements
33. Provide reasons for people to develop community activities
34. Improve perceptions of marginalised groups
35. Help transform the image of public bodies
36. Make people feel better about where they live
37. Help people develop their creativity
38. Erode the distinction between consumer and creator
39. Allow people to explore their values, meanings and dreams
40. Enrich the practice of professionals in the public and voluntary sectors
41. Transform the responsiveness of public service organisations
42. Encourage people to accept risk positively
43. Help community groups raise their vision beyond the immediate
44. Challenge conventional service delivery
45. Raise expectations about what is possible and desirable
46. Have a positive impact on how people feel
47. Be an effective means of health education
48. Contribute to a more relaxed atmosphere in health centres
49. Help improve the quality of life of people with poor health
50. Provide a unique and deep source of enjoyment

(Adapted from: Matarasso, 1997: viii)
Appendix II: Questionnaires

Nottingham Contemporary: Local Visitor Version

Thank you for taking part in this survey. I would like to ask you some questions about your visit to Nottingham Contemporary today. There is no right or wrong answer to any of the questions I am going to ask, it is your opinion that matters. Please tell me what you think.

Do you live in Nottingham?
☐ Yes ☐ No

Q1. Prior to today, how many times have you visited a contemporary art gallery before?
☐ Never ☐ 1 ☐ 2 ☐ 3 ☐ 4+

Q1-1 Prior to today, how many times have you been to Nottingham Contemporary before?
☐ Never ☐ 1 ☐ 2 ☐ 3 ☐ 4+

Q1-2 Prior to today, which exhibition(s) have you seen at Nottingham Contemporary?
☐ David Hockney ☐ Star City ☐ Lectures & Talks ☐ Others, ______

*On a scale of 0 to 10 (i.e. 10 is “Strongly Agree”), how strongly do you agree with the following statements?

Q2. “I like seeing real and original objects (i.e. castle, museum, art gallery, monument, etc.).”

Strongly Disagree Strongly Agree

Q3. “I like being among local people and experiencing their real life and culture.”

Strongly Disagree Strongly Agree

Q4. How many people are in your group? ______

*After visiting Nottingham Contemporary, to what extent do you agree with the following statements?

Q5. “Nottingham Contemporary stimulated my interest and improved my perceptions of contemporary art.”

1. Strongly disagree ☐
2. Disagree ☐
3. Neither agree nor disagree ☐
4. Agree ☐
5. Strongly agree ☐

Q6. “Nottingham Contemporary helped me to gain new insights into contemporary art.”

1. Strongly disagree ☐
2. Disagree □
3. Neither agree nor disagree □
4. Agree □
5. Strongly agree □

Q7. "Nottingham Contemporary has enhanced the impression I have of the city of Nottingham."
   1. Strongly disagree □
   2. Disagree □
   3. Neither agree nor disagree □
   4. Agree □
   5. Strongly agree □

Q8. "My visit to Nottingham Contemporary has made me want to learn more about contemporary art."
   1. Strongly disagree □
   2. Disagree □
   3. Neither agree nor disagree □
   4. Agree □
   5. Strongly agree □

Q9. "Nottingham Contemporary has helped broaden my knowledge of the local cultural scene."
   1. Strongly disagree □
   2. Disagree □
   3. Neither agree nor disagree □
   4. Agree □
   5. Strongly agree □

Q10. Do you intend to return to Nottingham Contemporary in the future?
   □ Yes □ No □ Uncertain

About you
Q11. What is your age?
   □ < 18 □ 18-34 □ 35-54 □ 55-74 □ 75+
Q12. Postcode: NG _______
Q13. Gender □ Male □ Female

Thank you for your time.

Nottingham Contemporary: Tourist Visitor version
Thank you for taking part in this survey.
I would like to ask you some questions about your visit to Nottingham Contemporary today. There is no right or wrong answer to any of the questions I am going to ask, it is your opinion that matters. Please tell me what you think.

Do you live in Nottingham? □ Yes □ No

Q1. What is the main purpose of your visit to Nottingham?
Holiday ☐  Business ☐  Visit friends and relatives ☐  Study ☐  Other, please specify  ☐  Visit Nottingham Contemporary ☐

Q2. Are you visiting Nottingham for the day or are you staying overnight?
☐ Day visit  ☐ Overnight

If overnight, then how many nights will you stay in total? ______

Q3. What other attractions have you been to or intend to go to during your visit to Nottingham?

Q4. What else have you done or do you intend to do during your visit to Nottingham?

☐ Architecture and buildings  ☐ Museums and galleries  ☐ Urban landscapes  ☐ Cultural attraction, events, festivals, exhibitions  ☐ Shopping  ☐ Business  ☐ Nightlife  ☐ City’s atmosphere  ☐ Other, please specify: ______

Q5. Prior to today, how many times have you been to Nottingham?
☐ Never  ☐ 1  ☐ 2  ☐ 3  ☐ 4+

Q6. Prior to today, how many times have you visited a contemporary art gallery before?
☐ Never  ☐ 1  ☐ 2  ☐ 3  ☐ 4+

Q6-1 Prior to today, how many times have you been to Nottingham Contemporary before?
☐ Never  ☐ 1  ☐ 2  ☐ 3  ☐ 4+

Q6-2 Prior to today, which exhibition(s) have you seen at Nottingham Contemporary?
☐ David Hockney  ☐ Star City  ☐ Lectures & Talks  ☐ Others, ______

Q7. How did you plan your trip to Nottingham Contemporary?
☐ Decided before arriving in the city  ☐ Decided after arriving in the city  ☐ This is an unplanned visit  ☐ Other, please specify: __________

*On a scale of 0 to 10 (i.e. 10 is “Strongly Agree”), how strongly do you agree with the following statements?

Q8. “Because I had heard of Nottingham Contemporary I was definitely going to visit Nottingham.”

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Strongly Disagree  Strongly Agree

Q9. “If Nottingham Contemporary had been closed to the public, I would have come to Nottingham anyway.”

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Strongly Disagree  Strongly Agree
Q10. "I like seeing real and original objects (i.e. castle, museum, art gallery, monument, etc.)."

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Q11. "I like being among local people and experiencing their real life and culture."

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Q12. How many people are in your group? ______

Q13. By the end of your visit, how much in total do you think your group will have spent in Nottingham? £__________

*After visiting Nottingham Contemporary, to what extent do you agree with the following statements?

Q14. "Nottingham Contemporary stimulated my interest and improved my perceptions of contemporary art."
1. Strongly disagree □
2. Disagree □
3. Neither agree nor disagree □
4. Agree □
5. Strongly agree □

Q15. "Nottingham Contemporary helped me to gain new insights into contemporary art."
1. Strongly disagree □
2. Disagree □
3. Neither agree nor disagree □
4. Agree □
5. Strongly agree □

Q16. "Nottingham Contemporary has helped broaden my knowledge of the local cultural scene."
1. Strongly disagree □
2. Disagree □
3. Neither agree nor disagree □
4. Agree □
5. Strongly agree □

Q17. "Nottingham Contemporary has enhanced the impression I have of the city of Nottingham."
1. Strongly disagree □
2. Disagree □
3. Neither agree nor disagree □
4. Agree □
5. Strongly agree □
Q18. “My visit to Nottingham Contemporary has made me want to learn more about contemporary art.”
   1. Strongly disagree □
   2. Disagree □
   3. Neither agree nor disagree □
   4. Agree □
   5. Strongly agree □

Q19. Do you intend to return to Nottingham in the future?
   □ Yes □ No □ Uncertain

Q20. Do you intend to return to Nottingham Contemporary in the future?
   □ Yes □ No □ Uncertain

About you

Q21. Where do you live? _______________________________ postcode __________

Q22. What is your age?
   □ < 18 □ 18-34 □ 35-54 □ 55-74 □ 75+

Q23. Gender □ Male □ Female

Thank you for your time.

Galleries of Justice: Local Visitor Version
Thank you for taking part in this survey.
I would like to ask you some questions about your visit to the Galleries of Justice today. There is no right or wrong answer to any of the questions I am going to ask, it is your opinion that matters. Please tell me what you think.

Do you live in Nottingham? □ Yes □ No

Q1. Prior to today, how many times have you visited a crime and punishment themed exhibition and gallery before?
   □ Never □ 1 □ 2 □ 3 □ 4+

*On a scale of 0 to 10 (i.e. 10 is “Strongly Agree”), how strongly do you agree with the following statements?

Q2. “I like seeing real and original objects (i.e. castle, museum, art galleries, monument, etc.).”

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Strongly Disagree Strongly Agree

Q3. “I like being among local people and experiencing their real life and culture.”

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Strongly Disagree Strongly Agree

Q4. How many people are in your group? ______

*After visiting the Galleries of Justice, to what extent do you agree with the following statements?
   1. Strongly disagree □
   2. Disagree □
   3. Neither agree nor disagree □
   4. Agree □
   5. Strongly agree □

   1. Strongly disagree □
   2. Disagree □
   3. Neither agree nor disagree □
   4. Agree □
   5. Strongly agree □

Q7. “The Galleries of Justice helped me to gain new insights into local history.”
   1. Strongly disagree □
   2. Disagree □
   3. Neither agree nor disagree □
   4. Agree □
   5. Strongly agree □

Q8. “The Galleries of Justice has changed the impression I have of the city of Nottingham.”
   1. Strongly disagree □
   2. Disagree □
   3. Neither agree nor disagree □
   4. Agree □
   5. Strongly agree □

Q9. “My visit to the Galleries of Justice has made me want to learn more about Victorian England, crime and punishment.”
   1. Strongly disagree □
   2. Disagree □
   3. Neither agree nor disagree □
   4. Agree □
   5. Strongly agree □

Q10. “The Galleries of Justice has helped broaden my knowledge of the local culture.”
   1. Strongly disagree □
   2. Disagree □
   3. Neither agree nor disagree □
   4. Agree □
   5. Strongly agree □

Q11. Do you intend to return to the Galleries of Justice in the future?
    □ Yes  □ No  □ Uncertain
About you
Q12. What is your age?
☐ < 18  ☐ 18-34  ☐ 35-54  ☐ 55-74  ☐ 75+
Q13. Gender
☐ Male  ☐ Female
Q14. If you would like to be added to our mailing list, please provide your Email address: __________________________________________

Thank you for your time.

Galleries of Justice: Tourist Visitor version

Thank you for taking part in this survey. I would like to ask you some questions about your visit to the Galleries of Justice today. There is no right or wrong answer to any of the questions I am going to ask, it is your opinion that matters. Please tell me what you think.

Do you live in Nottingham? ☐ Yes ☐ No
Q1. What is the main purpose of your visit to Nottingham?
☐ Holiday  ☐ Business  ☐ Visit friends and relatives  ☐ Study
☐ Other, please specify ______  ☐ Visit the Galleries of Justice
Q2. Are you visiting Nottingham for the day or are you staying overnight?
☐ Day visit  ☐ Overnight
If overnight, then how many nights will you stay in total? ______
Q3. What other attractions have you been to or intend to go to during your visit to Nottingham?

________________________________________

Q4. What else have you done or do you intend to do during your visit to Nottingham?

________________________________________
☐ Architecture and buildings  ☐ Museums and galleries  ☐ Urban landscapes  ☐ Cultural attraction, events, festivals, exhibitions  ☐ Shopping  ☐ Business  ☐ Nightlife  ☐ City’s atmosphere  ☐ Other, please specify: ________
Q5. Prior to today, how many times have you been to Nottingham?
☐ Never  ☐ 1  ☐ 2  ☐ 3  ☐ 4+
Q6. Prior to today, how many times have you visited a crime and punishment themed exhibition or gallery before?
☐ Never  ☐ 1  ☐ 2  ☐ 3  ☐ 4+
Q7. How did you plan your trip to the Galleries of Justice?
☐ Decided before arriving in the city
☐ Decided after arriving in the city
☐ This is an unplanned visit
☐ Other, please specify: ______________________
On a scale of 0 to 10 (i.e. 10 is “Strongly Agree”), how strongly do you agree with the following statements?

Q8. “Because I had heard of the Galleries of Justice, I was definitely going to visit Nottingham.”

Q9. “If the Galleries of Justice had been closed to the public, I would have come to Nottingham anyway.”

Q10. “I like seeing real and original objects (i.e. castle, museum, art galleries, monument, etc.).”

Q11. “I like being among local people and experiencing their real life and culture.”

Q12. How many people are in your group? _____

Q13. By the end of your visit, how much in total do you think your group will have spent in Nottingham? £ ________

*After visiting the Galleries of Justice, to what extent do you agree with the following statements?


1. Strongly disagree □
2. Disagree □
3. Neither agree nor disagree □
4. Agree □
5. Strongly agree □


1. Strongly disagree □
2. Disagree □
3. Neither agree nor disagree □
4. Agree □
5. Strongly agree □

Q16. “The Galleries of Justice helped me to gain new insights into local history.”

1. Strongly disagree □
2. Disagree □
3. Neither agree nor disagree □
4. Agree □
5. Strongly agree □

Q17. "The Galleries of Justice has helped broaden my knowledge of the local culture."
   1. Strongly disagree □
   2. Disagree □
   3. Neither agree nor disagree □
   4. Agree □
   5. Strongly agree □

Q18. "The Galleries of Justice has changed the impression I have of the city of Nottingham."
   1. Strongly disagree □
   2. Disagree □
   3. Neither agree nor disagree □
   4. Agree □
   5. Strongly agree □

Q19. "My visit to the Galleries of Justice has made me want to learn more about Victorian England, crime and punishment."
   1. Strongly disagree □
   2. Disagree □
   3. Neither agree nor disagree □
   4. Agree □
   5. Strongly agree □

Q20. Do you intend to return to Nottingham in the future?
   □ Yes  □ No  □ Uncertain

Q21. Do you intend to return to the Galleries of Justice in the future?
   □ Yes  □ No  □ Uncertain

About you
Q22. Where do you live? __________________ postcode______________________

Q23. What is your age?
   □ < 18  □ 18-34  □ 35-54  □ 55-74  □ 75+

Q24. Gender  □ Male  □ Female

Q25. If you would like to be added to our mailing list, please provide your Email address: ____________________________

Thank you for your time.