Cyprus University of Technology
Faculty of Communication and Media Studies

Doctoral Dissertation

INVESTIGATING TRAVEL SERVICESCAPES: DRIVERS, MOTIVATORS, AND OUTCOMES OF AIRPORT TRAVELLERS' EVALUATIONS

Pantelitsa Yerimou

Limassol, January 2025

CYPRUS UNIVERSITY OF TECHNOLOGY

FACULTY OF COMMUNICATION AND MEDIA STUDIES

DEPARTMENT OF COMMUNICATION AND MARKETING

Doctoral Dissertation

INVESTIGATING TRAVEL SERVICESCAPES: DRIVERS, MOTIVATORS, AND OUTCOMES OF AIRPORT TRAVELLERS' EVALUATIONS

Pantelitsa Yerimou

Supervisor

Dr. Christos Themistocleous, Lecturer

Faculty of Communication and Media Studies

Limassol, January 2025

Approval Form

Doctoral Dissertation

INVESTIGATING TRAVEL SERVICESCAPES: DRIVERS, MOTIVATORS, AND OUTCOMES OF AIRPORT TRAVELLERS' EVALUATIONS

Presented by

Pantelitsa Yerimou

Supervisor: Dr. Christos Themistocleous, Lecturer

Members of the Ph.D. Examination Committee

Yaniv Hanoch, Professor, Coventry University

Leonidas Hatzithomas, Associate Professor, University of Macedonia

Members of the Ph.D. Advisory Committee

Yorgos Zotos, Emeritus Professor, Cyprus University of Technology

Antigone Kyrousi, Assistant Professor, Deree – The American College of Greece

Cyprus University of Technology

Limassol, January 2025

Copyrights

To my son, Panayiotis, whom I welcomed during this journey,

To my grandfather, Neofytos, whom I said goodbye to during this journey.

2020, 2023

ACKNOWLEDGEMENTS

Completing a doctoral degree is commonly referred to as a marathon, and I am truly grateful to everyone who made this journey not only possible but gratifying.

First and foremost, I am grateful to my supervisor, Lecturer Christos Themistocleous, who has trusted and believed in me since the beginning. Taking the baton of this adventure, he guided me through every step, for which I will be eternally thankful. He taught me a lot, both professionally and personally, and he cared about every step I took. Dr. Themistocleous' dedication not only drove my research but also profoundly influenced my approach to teaching, establishing in me a commitment to both academic rigour and student engagement.

Secondly, I would like to acknowledge Emeritus Professor Yorgos Zotos, a member of my advisory committee, for encouraging me to pursue a doctorate during my bachelor's studies. His passion for marketing and advertising, as well as his proficiency in research and teaching, encouraged me to go on this adventure. I thank him for being there to listen to me, advise me, and guide me in the correct direction throughout the previous few years. Dr. Zotos is an example of a professional who cares about his children’s academic success.

At this point, I would like to thank the second member of my advisory committee, Assistant Professor Antigoni Kyrousi, who was always there to help me with my searches and clarifications, demonstrating complete understanding and compassion. Her words and encouragement greatly aided my doctorate journey.

I would also like to thank the members of my Examination Committee, Professor Yaniv Hanoch of Coventry University and Associate Professor Leonidas Hatzithomas of the University of Macedonia, for accepting to evaluate my doctoral dissertation.

I would also like to thank Assistant Professors Anna Farmaki and Prokopis Christou for their valuable advice and feedback on my qualitative analysis and conceptual framework. I also acknowledge the executives of tourist accommodations in the Famagusta area for allowing me to conduct a portion of my study in their facilities.

I am grateful to my beloved friend, Dr. Evdoxia Kyriakou, for everything we have shared since our first day as PhD candidates. I appreciate her from the bottom of my heart for her kindness, understanding, and everything we have shared.

Also, I would like to acknowledge my friend, Ms. Maria Savvides, for her invaluable assistance in proofreading my thesis and making sure its language and coherence were polished and structured.

I am extremely grateful to my family. To my husband, mom, dad, and sister. I shall be eternally grateful to them because they have been my invisible strength in everything. They were there to pick me up and assist me through every difficult situation, phone call, and disappointment. Their unwavering love, support, and faith in all areas served as the guiding light throughout my PhD studies. I cannot overlook how happy I am to have my son, who entered my life during this adventure. His cheerful moments and smile inspired me to keep going. I appreciate you all being by my side through the ups and downs of this journey. I could not have done it without you.

Finally, I am grateful to the rest of my family, friends, and colleagues for their support and encouragement. I also want to thank Professor Georgios Panigyrakis for giving me the opportunity to begin the doctoral journey.

ΕΥΧΑΡΙΣΤΙΕΣ

Η ολοκλήρωση μιας διδακτορικής διατριβής συνήθως φαντάζει ως μαραθώνιος και είμαι πραγματικά ευγνώμων σε όλους όσους έκαναν αυτό το ταξίδι όχι μόνο δυνατό αλλά και ευχάριστο.

Πρώτον και κύριο, ευχαριστώ τον επιβλέποντα καθηγητή μου, Λέκτορα Χρήστο Θεμιστοκλέους, που με εμπιστεύτηκε και πίστεψε σε μένα από την αρχή. Παίρνοντας τη σκυτάλη αυτής της περιπέτειας, με καθοδήγησε σε κάθε βήμα, για το οποίο θα είμαι πάντα ευγνώμων. Μου δίδαξε πολλά, τόσο σε επαγγελματικό όσο και σε προσωπικό επίπεδο και νοιαζόταν για κάθε βήμα που έκανα. Η αφοσίωση του Δρ. Θεμιστοκλέους όχι μόνο οδήγησε την έρευνά μου, αλλά επηρέασε επίσης βαθιά την προσέγγισή μου στη διδασκαλία, καθιερώνοντας μέσα μου μια δέσμευση τόσο για την ακαδημαϊκή αυστηρότητα όσο και για τη συμμετοχή των μαθητών.

Δεύτερον, θα ήθελα να ευχαριστήσω τον Ομότιμο Καθηγητή Γιώργο Ζώτο, μέλος της συμβουλευτικής μου επιτροπής, που με ενθάρρυνε να κάνω διδακτορικό κατά τη διάρκεια των πτυχιακών μου σπουδών. Το πάθος του για το μάρκετινγκ και τη διαφήμιση, καθώς και η επαγγελματικότητά του στην έρευνα και τη διδασκαλία, με ενθάρρυναν να προχωρήσω σε αυτό το ταξίδι. Τον ευχαριστώ που ήταν εκεί για να με ακούσει, να με συμβουλέψει και να με καθοδηγήσει στη σωστή κατεύθυνση τα προηγούμενα χρόνια. Ο Δρ. Ζώτος είναι παράδειγμα επαγγελματία που νοιάζεται για την ακαδημαϊκή επιτυχία των παιδιών του.

Σε αυτό το σημείο, θα ήθελα να ευχαριστήσω το δεύτερο μέλος της συμβουλευτικής μου επιτροπής, την Επίκουρη Καθηγήτρια Αντιγόνη Κυρούση, που ήταν πάντα εκεί για να με βοηθήσει στις αναζητήσεις και τις διευκρινίσεις μου, επιδεικνύοντας πλήρη κατανόηση και συμπόνια. Τα λόγια και η ενθάρρυνση της βοήθησαν πολύ το διδακτορικό μου ταξίδι.

Θα ήθελα επίσης να ευχαριστήσω τα μέλη της Εξεταστικής μου Επιτροπής, τον Καθηγητή Yaniv Hanoch του Πανεπιστημίου του Coventry και τον Αναπληρωτή Καθηγητή Λεωνίδα Χατζηθωμά του Πανεπιστημίου Μακεδονίας, που δέχτηκαν να αξιολογήσουν τη διδακτορική μου διατριβή.

Θα ήθελα επίσης να ευχαριστήσω την Επίκουρη Καθηγήτρια Άννα Φαρμάκη και Επίκουρο Καθηγητή Προσκόπη Χρίστου για τις πολύτιμες συμβουλές και τα σχόλιά

του σχετικά με την ποιοτική μου ανάλυση και ερευνητικό μοντέλο. Ευχαριστώ επίσης τα στελέχη των τουριστικών καταλυμάτων στην περιοχή της Αμμοχώστου που μου επέτρεψαν να πραγματοποιήσω ένα μέρος της μελέτης μου στις εγκαταστάσεις τους.

Είμαι ευγνώμων στη συνοδοιπόρο μου, πλέον Δρ. Ευδοξία Κυριακού, για όλα όσα έχουμε μοιραστεί από την πρώτη μας μέρα ως υποψήφιες διδακτόρισσες. Την εκτιμώ από τα βάθη της καρδιάς μου για την καλοσύνη, την κατανόησή της και όλα όσα έχουμε μοιραστεί.

Επίσης, θα ήθελα να ευχαριστήσω τη φίλη μου, κα Μαρία Σαββίδη, για την πολύτιμη βοήθειά της στη διόρθωση της διατριβής μου και στη διασφάλιση της δομής της γλώσσας και της συνοχής της.

Είμαι εξαιρετικά ευγνώμων στην οικογένειά μου. Στο σύζυγό μου, τη μητέρα μου, τον πατέρα μου, και την αδερφή μου. Θα τους είμαι αιώνια ευγνώμων γιατί ήταν η αόρατη δύναμή μου σε όλα. Ήταν εκεί για να με σηκώσουν και να με βοηθήσουν σε κάθε δύσκολη κατάσταση, τηλεφώνημα και απογοήτευση. Η ακλόνητη αγάπη, η υποστήριξη και η πίστη τους σε όλους τους τομείς λειτούργησαν ως το φως καθοδήγησης σε όλη τη διάρκεια των διδακτορικών μου σπουδών. Δεν μπορώ να παραβλέψω την ευχαρίστησή μου στον γιο μου, ο οποίος εισήλθε στη ζωή μου κατά τη διάρκεια αυτού του ταξιδιού. Οι χαρούμενες στιγμές και το χαμόγελό του με ενέπνευσαν να συνεχίσω. Εκτιμώ όλους εσάς που ήσασταν δίπλα μου, στα σκαμπανεβάσματα αυτού του ταξιδιού. Δεν θα μπορούσα να το κάνω χωρίς εσένα.

Καταληκτικά, είμαι ευγνώμων στην υπόλοιπη οικογένειά μου, τους φίλους και τους συναδέλφους μου. Είμαι ευγνώμων για την υποστήριξη και την ενθάρρυνση τους. Επίσης, θέλω να ευχαριστήσω τον Καθηγητή Γεώργιο Πανηγυράκη που μου έδωσε την ευκαιρία να εισέλθω στο διδακτορικό αυτό ταξίδι.

ABSTRACT

The current thesis explores environmental factors in airports that influence travellers' emotions, satisfaction and airport image. It delineates how cultural elements and travellers' responsiveness contribute to airport satisfaction and image evaluations. Addressing the identified gaps that include a) a predominant focus on airports' functional aspects, b) a vague examination of emotions and c) lack of insights pertaining to the effects of sense of place and environmental responsiveness, the thesis conducts two studies. Study 1, uses sequential mixed-methods consisting of a survey with 534 international travellers, and a focus group with 4 senior managers of an international airport, in order to examine how sense of place stimuli contribute to travellers' airport image. Study 2, uses a concurrent mixed-methods approach comprised by a survey with 376 international travellers and 22 interviews, the study examined the integration of human and physical-related factors, along with sense of place stimuli and responsiveness as moderators of the environment-satisfaction nexus. Findings reveal that environmental stimuli (i.e., ambiance and layout) make a significant contribution on travellers' emotions, airport image, and satisfaction. In both phases, sense of place revealed significant moderating effects, with environmental responsiveness also marking significant results. Based on these insights, new research areas are addressed and recommendations for improving traveller experiences are offered to practitioners and policymakers. Discussions on authenticity are expanded and guidelines are provided on the construct's future measurements and strategic utilisation for effective airports environment planning.

Keywords: Airport Environment; Emotions; Image; Satisfaction; Sense of place, Responsiveness; Servicescape

Research Output

Publications in Academic Journals

2024 **Yerimou, P.,** Themistocleous, C., Farmaki, A. Authenticity in Travelling Servicescapes: Examining Sense of Place Stimuli in Airports. *Journal of Tourism Planning and Development (revised and resubmitted)*

Publications in Books

2024 **Yerimou, P.,** Themistocleous, C. (Re)Defining Airport Experience: A New Framework Proposition, in: Zarkada, A. (Ed.), Marketing Solutions to the Challenges of a VUCA Environment. Springer

Publications in Academic Conferences

2024 **Yerimou, P.,** Themistocleous, C. Airportscape And Its Effects On Emotions And Satisfaction: Moderating Roles Of Sense Of Place And Environmental Responsiveness, *Academy of Marketing Conference, Cardiff, Wales,* 1-4 July

2023 **Yerimou, P.,** Themistocleous, C. Airport Environment And Its Influence On Traveller Emotions, Perceived Quality And Revisit, *Academy of Marketing Conference, Birmingham, United Kingdom,* 3-6 July

2022 **Yerimou, P.,** Panigyrakis, G. G., Themistocleous, C. The role of airport experience on destination revisit during Covid-19 pandemic, *26th International Corporate and Marketing Communications Conference, Nicosia, Cyprus,* 18-20 April

2022 **Yerimou, P.,** Themistocleous, C., Panigyrakis, G. G. Does sense of place matter? Investigating the role of airport atmospherics on destination revisit, Tourism, Hospitality and Events International Conference (INC), Limassol, 22-24 June

2021 Panigyrakis, G. G., **Yerimou, P**., Kyriacou, E. The role of office atmospherics on enhancing internal marketing effectiveness in fulfilling job satisfaction: an application to the shipping industry, *25th International Corporate and Marketing Communications Conference, Granada, Spain,* 14-16 April

2021 Panigyrakis, G. G., Papakonstantinou, K., **Yerimou, P.,** and Koronaki, E. Building a country brand through sustainability: the case of Greece, Cyprus, Israel and Egypt. *25th International Corporate and Marketing Communications Conference, Granada, Spain,* 14-16 April

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

ACI:	Airport Council International
AI:	Artificial Intelligence
AVE:	Average Variance Extracted
CB:	Consumer Behaviour
CFA:	Confirmatory Factor Analysis
CFI:	Comparative Fit Index
CR:	Composite Reliability
CR^2:	Critical Ratio
df:	Degrees of Freedom
EFA:	Exploratory Factor Analysis
F	Female
H	Hypothesis
KMO:	Kaiser-Meyer-Olkin
M	Male
m:	Mean
M-R:	Mehrabian-Russell
n:	Sample size
O:	Organism
p:	Statistical significance
P():	Participant (coded number for qualitative analysis)
PAD:	Pleasure-Arousal-Dominance
PLS-SEM:	Partial Least Squares-Structural Equation Modelling
QUAL:	Qualitative

QUAN:	Quantitative
R:	Response
RH:	Research Hypothesis
RMSEA:	Root Mean Square Error of Approximation
RQ:	Research Question
S:	Stimuli
SEM:	Structural Equation Modelling
SOR	Stimulus-Organism-Response
SPSS:	Statistical Package of Social Sciences
SRMR:	Standardised Root Mean Square Residual
S_1	Study 1
S_2	Study 2
TLI:	Tucker-Lewis Index
WHO:	World Health Organisation
WOM:	Word-of-Mouth
ZPD:	Zone of Proximal Development
α:	Cronbach alpha
σ or SD:	Standard Deviation
$\chi^{2:}$	Chi-square

1 Introduction

Have you ever visited an airport so unique that you could not stop discussing it, sharing photos on social media, or reflecting on it long after your journey? Perhaps it was the breathtaking architecture, an extraordinary cultural exhibition, or a feeling of harmony within the lively surroundings. Airports are more than mere transit points; they are environments where experiences are created, emotions are evoked, and memories are formed.

As travellers' first and last interactions with a country, airport environments are nowadays designed to generate lasting experiences. The concept of environment has attracted the research community's attention for decades, both in terms of the typology of its elements and its influences on consumer behaviour. Airports are complex settings where travellers spend much time, often in stressful conditions like delays or layovers. In 2023, travellers exceeded 8.5 billion, underlining the importance of airports extending beyond their primary function (ACI, 2024). Such figures are attracting the attention of academia and the industry to investigate further the importance of airport environments in enhancing traveller satisfaction and image perception. Travellers often spend 1.5 to 3 hours in airports before a flight. The considerable number of passengers and their extended stay in airports have rendered such places essential for improving passenger experiences via services like dining, retail, and entertainment. It is apparent that, while awaiting the flight, travellers are evenly distributed throughout the gate, shops, and restaurants (Statista, 2024). Creating a unique environment can reduce tension while maintaining a favourable airport image, increase enjoyment, and enhance satisfaction. Adapting the airport servicescape to reflect its native country can make it more than a transportation hub, like a memorable visit.

An example of an attempt to improve the airport environment is the incorporation of artificial intelligence (AI) technology, including robots, which underscores the increasing significance of the environment as a critical element in marketing strategy within aviation hubs. For instance, Munich airport employs an AI robot called *'Josie Pepper'* to aid travellers, while in Philadelphia, *'Gita'* transports meals to the airport's travellers. Tokyo-Haneda airport introduced *'Jet,' an AI robot that provides multilingual concierge assistance and can guide* travellers on airport grounds. Such additions not

only improve functionality but also reflect the countries' advancements in robotics. Travelling has been characterised as a crucial endeavour offering numerous advantages, including personal growth and enhancing travellers' skills (Stone & Petrick, 2013). The liberalisation of airports allowed travellers to travel freely, not only for working purposes but also for relaxation.

Since the environment seemed to influence individuals significantly, the concept of environmental stimuli came to the fore and attracted the interest of several researchers (Wörfel et al., 2022; Siu et al., 2012; Baker et al., 2002). This term has been precisely analysed concerning its typology and use in various places. Department stores (e.g. Dalmoro et al., 2019; Yoon, 2013), retail and clothing stores (Biswas et al., 2019; Vukadin et al., 2018), food chain stores such as supermarkets (Bitner, 1992b; Dilmperi et al., 2010), restaurants (e.g. Biswas et al., 2017; Ha & Jang, 2012) and museums (Bonn et al., 2007; Loureiro, 2019) are some of the places where the application of this tool has been studied and is transparent in terms of its importance.

Even though studies have examined how the airport environment affects travellers' evaluations, exploring additional dimensions that occur within an individual's cognitive process is necessary. Assessing the consideration of environmental cues and the corresponding responses of travellers is a crucial aspect of research. In airport servicescapes, environmental stimuli act as a marketing tool; however, research on this topic is considered minimal (e.g. Moon et al., 2017; Ali et al., 2016). Moreover, extensive examinations revealed that research on the airport environment focused mainly on its *physical attributes*, overlooking the *human variable.* It is now evident that airports not only consist of airport staff (e.g., check-in personnel) but also invest in AI technology related to humans.

Much effort has also been made to investigate environmental stimuli's effects on *emotions* in service contexts, such as restaurants (Liu & Jang, 2009), underlying the lack of empirical research within the airport context. Similarly, investigating travellers' *satisfaction* as influenced by these emotions is recognised as a potential future path in tourism marketing research that still needs further examination (García-Sánchez et al., 2013). Conceptual models position satisfaction as the end response and primary dependent variable (i.e. Bezerra & Gomes, 2019; Piancatelli et al., 2021), yet fewer papers focused on how *airport image* is influenced by servicescape models and how

emotional dimensions, other than functional ones, moderate such interactions. Image, contrary to satisfaction, affects long-term airport goals including the probability of returning to the airport (Bogicevic et al., 2013) and has been shown to increase traveller loyalty in hospitality (Han, Kiatkawsin, et al., 2019), an important dimension for tourism planning. Even fewer are the cases that utilise *sense of place stimuli* and *environmental responsiveness* when examining airport servicescapes, emerging constructs, in tourism and marketing research (Wattanacharoensil et al., 2021). Sense of place and environmental responsiveness go beyond filling gaps in the literature.

This thesis' novelty lies in integrating physical and human-related stimuli rather than isolated examinations, thus providing a more holistic, reality-reflecting approach. Global health statistics underscore the significance of emotional well-being today, so the current thesis expands on how airport environments might foster favourable emotions and satisfaction. Depicting authenticity in airports extends beyond research gaps since it can transform airports into memorable destinations while enhancing travellers' satisfaction and airport image, thus lowering stress levels. Importantly, addressing individuals' environmental responsiveness surpasses the environment-satisfaction nexus by raising additional insights into travellers' cognitive processes. *How are airports being evaluated today? Do travellers respond to environmental stimuli?*

The research gaps in the field of environment enclose the following:

a) the use of its elements holistically (Ballantine et al., 2015; Han & Hyun, 2018; Spence et al., 2014),

b) the nature and contexts applied (Bezerra & Gomes, 2019; Francioni et al., 2018; Helmefalk, 2019),

c) their use to achieve differentiation and a unique experience (Rowley & Slack, 1999; Zare & Ye, 2023).

d) their influence on image (Ali et al., 2016; Han, Olya, et al., 2019; K. Park & Park, 2018).

Chapter 1.1 provides a thorough examination of the research gaps that the current thesis aims to address.

1.1 Research Gap

The importance of the environment dates back decades, with researchers giving attention to its influence on consumers. Consumers' emotions, the propensity to engage in positive word-of-mouth (WOM) about an organisation, the likelihood of revisiting a store, overall satisfaction, and loyalty represent just a few instances highlighted as outcomes of the airport environment (Choi & Kandampully, 2018; Han, Kiatkawsin, et al., 2019; Yerimou & Themistocleous, 2024b).

Nevertheless, it is a strategy that gained important attention, with companies and destination authorities adopting more sensory stimuli in their servicescapes to achieve "memorable experiences" (J. H. Kim, 2014, p. 36). Such experiences aid destination managers designing environments that align with a destination's unique strengths and attractions. Airports are a context where little research was conducted investigating its environment and influence on visitors' behaviour (Prentice & Kadan, 2019; Wattanacharoensil et al., 2021). Postmodernism[1] resulted in placelessness servicescapes without respect to culture and "unique characteristics" (Keillor & Hult, 1999, p. 67). In this essence, airports follow the "globalisation utopia" (Urry et al., 2016, p. 20) without systematically enhancing visitors' experience. As such, the need to thoroughly understand airport experiences, concerns both the airport image evaluations (Nghiêm-Phú & Suter, 2018; K. Park & Park, 2018; Prentice & Kadan, 2019) as well as travellers' satisfaction (García-Sánchez et al., 2013; Nghiêm-Phú & Suter, 2018).

Drawing upon the foregoing brief discussion, the present dissertation proposal aims to fill the following research gaps:

a) Environmental cues must be understood holistically as they are "potentially stronger" than focusing on one or two sensory cues (Spence et al., 2014, p. 483). Consistent with the research, the investigation of the multi-sensory environments

[1] Postmodernism refers to a globalised era where lifestyles and conditions are similar among countries, with Western countries having the greatest influence both in terms of economy and culture (Firat, 1992; Firat & Shultz, 1997). Multiculturism and digital technologies reflect societies which are now giving attention to symbols and images (Brown, 1994).

as a whole is called to be further examined as are in their natural environments (Helmefalk, 2019; Francioni et al., 2018). Numerous studies used to examine "various environmental elements taken one at a time" (Baker et al., 2002, p. 120). In this essence, airport environmental stimuli should be investigated holistically as previous studies investigated different stimuli in isolation (Han & Hyun, 2018; Ali et al., 2016).

b) It was also identified through extensive examinations that research on the airport environment focused mainly on its physical attributes, overlooking the human variable (e.g. Tubillejas-Andrés et al., 2020). It is now evident that airports not only consist of airport staff (e.g., check-in personnel) but also invest in artificial intelligence (AI) technology related to humans.

c) Much effort has also been made to investigate environmental stimuli's effects on emotions in service contexts, such as restaurants (Liu & Jang, 2009), underlying the lack of empirical research within the airport context (Kim et al., 2016). Similarly, investigating travellers' satisfaction as influenced by these emotions is recognised as a potential future path in tourism marketing research that still needs further examination (García-Sánchez et al., 2013).

d) In literature, numerous discussion exist regarding the design of places without identity. In this research, Volgger (2019, p. 143) stated that designs today tend to be "myopic without respect to places". Specifying this statement, servicescapes have been affected from the global trap of "sameness" (Rowley & Slack, 1999; Zare & Ye, 2023) with passengers forgetting the countries' tradition and characteristics during their journey in the airport (Nghiêm-Phú & Suter, 2018; C. J. Smith & Relph, 1978). As such, sense of a place needs to be transferred through the servicescape's design to enhance a memorable experience (Castro & Lohmann, 2014; Graham et al., 2008). .

e) Nowadays servicescapes are being designed in similar ways with the the problem of differentiation being raised (Figueiredo & Castro, 2019; Vukadin et al., 2018). More studies are needed to investigate the airports' design stimuli and how travellers evaluate them (Del Chiappa et al., 2019). Based on this rationale, Wattanacharoensil et al., (2016, p. 2) mentioned that "the concept of the airport experience remains vague, subjective, and unsystematically understood".

f) Environmental responsiveness is also covered in academic literature. Even though studies examine how the airport environment affects travellers' evaluations, it is necessary to explore additional dimensions that occur within an individual's cognitive processes. Assessing travellers' environmental responsiveness is a crucial aspect of research, yet to the best of the author's knowledge, it has been examined only in the context of online retail (Eroglu et al., 2003).

1.2 Research Contribution

Given the extant literature and research gap, the dissertation investigates international airports' environments and their impact on travellers' emotional states and evaluations regarding satisfaction and airport image. The dissertation is pivotal for academics and practitioners as it extends the scientific knowledge in linking holistic environmental cues[2], emotions, satisfaction and corresponding airport image. Importantly, sense of place and environmental responsiveness are being examined upon their moderating effects.

This research is among the first to attempt the examination and linkage of environmental stimuli, emotions, satisfaction, image, sense of place and environmental responsiveness under two main phases of studies. These examinations provide a major contribution to the academic and business community. Specifically,

a) It contributes to enhancing the tourism and marketing literature to understand the holistic approach of environmental stimuli in the airport context (Moon et al., 2017; Urry et al., 2016). Importantly, it provides insights into the integration of the human-related and physical-related factors in the airport servicescape (Tubillejas-Andrés et al., 2020).

b) The topic of the research adds to the foregoing discussion on the need for applying national characteristics and identity within the airport environment,

[2]Holistic environmental cues refer to the interplay of all the environmental stimuli that come into humans' perceptions as a whole (eg. Helmefalk & Hultén, 2017; Ballantine et al., 2010, 2015)

thus leading to memorable tourism experiences (Zare & Ye, 2023; Graham et al., 2017). Findings will reveal to the academic community whether incorporating a culture's characteristics into airport design moderates and enhances visitors' experience evaluations.

c) From a broader theoretical viewpoint, the examination of airport environments and travellers' evaluations can open up new research avenues on this linkage in the context of airports and reveal whether airport environments can trigger positive airport image and country image.

d) The moderating effects are attempted, with results giving additional insights into travellers' cognitive processes. A moderating investigation expands previous mediating examinations (Wattanachareonsil et al., 2021), by providing linkages between constructs that enhance the precision and efficacy of respective interventions (Hayes, 2022).

From a practical standpoint, this thesis contributes in the following ways;

a) Exploring the synergy of the airports' environmental elements, the airport authorities of the different airports will better understand their strategies, and findings can shed light on possible improvements in the use of the environmental stimuli (Del Chiappa et al., 2019).

b) The dissertation provides an original contribution to the airport authorities by drawing the importance of having an airport identity in terms of culture, raising the need for re-designing airports' environments. Furthermore, investigating the role and impact of sense of place helps in the identification of the individuals' attitudes towards the place, thus shedding light on whether this factor should be taken into account by the managers (François Lecompte et al., 2017).

c) Airports and countries can use the knowledge gained from the linkage between the airports, satisfaction evaluations and airport image to tailor their marketing strategies to the passengers' needs (Prentice & Kadan, 2019). Fulfilling visitors' expectations and diversifying the airports' environments can enrich passengers' memories and overall destination evaluations (Bezerra & Gomes, 2019; Del Chiappa et al., 2019).

d) Outcomes will attract the attention of destination authorities and airport management, who by understanding the connection of the relationships mentioned above will step up efforts to develop strategies on communicating favorable images at the airports. In this perspective, considering the above linkage can attract foreign investments in the business industry, increase tourism levels (Figueiredo & Castro, 2019) and contribute to a destination's economic development (Piccinelli et al., 2021).

1.3 Research Objectives

In sub-chapters 1.1 and 1.2, the main gaps found in literature are discussed, and the contribution of the research in theory and practice are presented respectively. The main objective of the present research is three-fold. Firstly, to understand the influence of airport environmental stimuli both isolated and as a higher order construct on travellers' evaluations in terms of image and satisfaction. Secondly, to comprehend the role of travellers' emotional states in the airport servicescape. Thirdly, to extend beyond the above linkages and examine possible moderating[3] effects of sense of place and environmental responsiveness. Each of the research objectives is discussed in more detail as follows;

a) To understand the influence of airport environmental stimuli both isolated and as a higher order construct, responds to the gap upon the holistic examination of the environmental cues. Furthermore, the human aspect is also considered, extending beyond the evidence of airports' functionality influence. This influence is set to be examined on airport image and visitors' satisfaction, filling the need for a further investigation airports' servicescapes.

b) The second objective deals with the role of emotions in the airport context. Emotions are more thoroughly investigated in contexts such as restaurants and retail and categorised positively or negatively. In the current thesis, travellers'

[3] A moderator is defined as the variable which affects the relationship of two other variables, either by strengthening or changing its direction (Field, 2018, p. 636).

emotional states are being examined under the main constructs of pleasure and arousal, thus shedding light on their role in the airport context.

c) The last objective encounters the moderating effects of sense of place and environmental responsiveness. In Study 1, sense of place is being examined as the moderator between the airport environment and airport image; among the first attempts to test this moderating effect on image. Similarly, in Study 2, sense of place and environmental responsiveness are examined as moderators between the airport environment and satisfaction, shedding more insights on visitors' cognitive processes.

1.4 Research Questions

After discussing Research Gaps, Research Contribution, and Research Objectives, research questions are framed and represent the purpose of the present thesis. These questions are conceptualised into three main fields that explain and lead to their formation.

1.4.1 Environmental Stimuli and Evaluations

RQ_1: What is the influence of the airports' environment on travellers' evaluations?

1.4.2 Moderating influences

RQ_2: Do moderating variables affect the relationship between airport environment and travellers' evaluations?

1.4.3 The influence of external variables

RQ_3: What is the impact of external variables on travellers' evaluations towards the airport?

1.5 Structure of thesis

The doctoral thesis is organised as follows: The Literature Review chapter (Chapter 2) begins by providing the reader with an overview of the research's context. It

underscores the significance of airports today, aims to portray the obstacles they encounter, and emphasises the critical role of the environment in determining the airport's image, satisfaction, and emotions. Subsequently, the strategic significance of environmental responsiveness and sense of place is examined and how these factors become significant in airport environments.

The third chapter of the doctoral thesis introduces the Stimulus-Organism-Response (SOR) theoretical research model and discusses its application and modification in the context of airports. Consequently, the research hypotheses are supported by related published research.

The fourth chapter is about the methodology employed to undertake the primary research. It presents an overview of the field research design. Subsequently, the sampling frames of the surveys are analysed, and the data collection methodologies are presented. The chapter describes the methodology for evaluating the research hypotheses and analysing the data.

The descriptive statistics and exploratory factor analysis results are presented in the fifth chapter, and the reliability, validity, and normality tests are conducted. Simultaneously, structural equation models are implemented to evaluate the research hypotheses of the doctoral thesis. Following that, the sixth chapter addresses the outcomes and formulates the conclusions of the doctoral research. Meanwhile, professionals in the industry are presented with specific recommendations to assist them in accomplishing their objectives. The chapter concludes by proposing future research directions to enhance comprehension of the value and applications of Cognitive Appraisal theory in consumer behaviour. Finally, the limitations of the current doctoral research are identified.

2 Literature Review

2.1 Introduction

This chapter provides an overview of relevant literature on the psychology behind servicescape environment, focusing on applied research in airport settings. The chapter begins by reviewing definitions of environment and the development of typology in environmental stimuli. Subsequently, the paper examines research that considers the comprehensive impact of different stimuli in conjunction with the evolution of the airport setting. The chapter is subdivided into the primary impacts of the airport environment, encompassing emotions, satisfaction, and image and concludes with an overview of important research that examines the impacts of sense of place and responsiveness.

2.2 Defining Environment

The value of the environment has long been appreciated, and the idea of constructing an impressive environment according to Booms and Bitner (1981), extends back centuries, with temples in ancient times and palaces in the Renaissance. When evaluating and defining the environment of a place, one can speak of its atmosphere, surroundings, and people. An environment involves a variety of experience-shaping variables. Individuals are met with various environmental signals, collected through the five senses, which allow them to perceive and understand their surroundings. Purposeful designs in the choice environment can effectively aid customers in decision-making (Barnes et al., 2015). Such selections may include colours, architectural styles, and artworks.

Scholars have sought to categorise the environment through the five senses (Kotler, 1973), while others classified it according to stimulus type (Turley & Milliman, 2000). Nevertheless, the most common distinction is between ambience, space, and symbols (Bitner, 1992a). The transition to the experience economy prompted academics and practitioners to look for new approaches to attract humans and influence behaviour and/or emotions. Lighting, music, and scents are environmental signals with substantial research

confirming their influence on emotions and behaviour (Bitner, 1992a; Krishna & Schwarz, 2014).

Initial conversations concerning the use of surroundings, featured airports and terminals as examples of places that are purposefully designed with contemporary elements (Kotler, 1973). Studies aimed to determine airport experience using environmental stimuli such as layout, signage, and ambience, as well as other studies focusing mainly on cognitive and emotional, features (Moon *et al.*, 2017; Batouei *et al.*, 2020). In the case of airports, when the environment is at the forefront of the research, there is a propensity to explore broader categories of ambience, layout, convenience, and functionality (Ali et al., 2016; H. C. Kim et al., 2016). Colours, decoration, hygienic concerns, passenger crowding, space arrangement, and ease of access from one spot to another are among the many explored stimuli.

The attractive component of airport environments is frequently discussed, with beautiful narratives from travellers who provide favourable feedback and unforgettable experiences. However, there are also instances where airport surroundings are not always pleasant. Airports (i.e. Heathrow Airport, UK and Mumbai Airport, China) are referred to as World War II owing to bad architecture, long lines, and confused directing signs (The Times, 2024). Mismanagement by security personnel, airport staff behaviour, and missing luggage are common issues at other airports (The Telegraph, 2024). Many reviews of airports are available on global online sites such as Skytrax, where travellers share their real-life experiences. Cleanliness, layout, ambiance, and the human component are among the subjects that travellers frequently rank and discuss (Skytrax, 2024).

It is perhaps surprising that the human factor have only recently been examined in servicescape research, especially when manned airport check-in desks, security personnel, cafeteria waiters, and aesthetic designs all serve as critical components of the traveller's journey, experience, and underlying choices.

2.2.1 The evolution of environmental stimuli

Kotler was among the first who coined the term of atmospherics. In his work, he underlined that consumers do not buy a tangible product but the "total consumption package" (Kotler, 1973, p. 48). Drawing up on his statement he specified the role of

atmosphere in a buying decision, and was the one who introduced the term of atmospherics as the "effort to design buying environments… that enhance his purchase probability" (Kotler, 1973, p. 50). Moreover, he divided the term into the four sensory dimensions of sight, hearing, smell and touch. The different environmental cues include: sight; colour, brightness, shape, size, hearing; volume and pitch, smell; scent and freshness, and touch; softness, smoothness and temperature. Such environmental stimuli enhance experiences and purchases probability. Kotler (1973) concluded that further research was needed as industries misplanned their environments' design and consumers were not well investigated.

A year later, Mehrabian and Russel (1974) indicated the importance of environmental psychology, through the Mehrabian-Russel (M-R) model which shows that individuals tend to have emotional responses towards environmental stimuli, which moderates their emotional responses before a behavioural decision occurs (approach or avoidance).

Since then, environmental research has sparked the interest of researchers to begin investigating the importance and dimensions of environmental factors (Booms & Bitner, 1982; Baker, 1986; Bitner, 1992; Turley & Milliman, 2000). A series of scholars have introduced various taxonomies based on the classification of environmental stimuli for a better understanding. Firstly, Booms and Bitner (1982), gave various examples of industries that designed their servicescapes to attract approach behaviours. In their research, they indicated the importance of to see the environments and their stimuli "as a whole" (Booms & Bitner, 1982, p. 38). Baker (1986) aimed to categorise all the environmental elements for a better understanding. Precisely, she added more stimuli than Kotler (1973), and divided the environment into three main dimensions, 1) ambient factors (air quality, noise, scent, cleanliness), 2) design factors which are divided into two sub-categories of i) aesthetics (colour, architecture, style and ii) functionality (layout and signage). The third dimension is the one of social factors which engages both customers and employees in terms of their number, appearance and behaviour.

In a follow up study, Bitner (1992) integrated various researches and introduced a new framework to describe and analyse the servicescape's environment. Consistent with the research of Baker (1986), she divided the environmental dimensions into three main categories; ambient conditions, space/function and signs, symbols and artifacts. The difference with Baker's (1986) model, is that the category of ambient conditions

includes the music stimuli, which was missing from the previous research. The remaining categories were also changed, adding more cues such as the crowding, furnishings, equipment, artworks, decoration, and floor coverings. However, even though Bitner (1992) did not include the colour scheme in sensory cues, consistent with Baker (1986) she underlined the importance to investigate the environment holistically. Another key issue that this research has underpinned, is the types of organisations that each stimulates a different need on the use of sensory strategy. This typology categorisation consists of three main elements of 1) self-service organisations (only customers), 2) interpersonal services organisations (customers and employees) and 3) remote service organisations (only employees). These different types of organisations, enclose different strategies and design of environment. So far, the research above (Kotler, 1973; Baker, 1986; Bitner, 1992) tried to divide the environmental stimuli into categories for a better understanding. These efforts led more researchers to continue constructing the atmospheric variables and their categorisation (Baker et al., 1994; Berman & Evans, 1995; L. W. Turley & Milliman, 2000). On the one hand, Baker, Grewal and Parasuraman (1994) modified the atmospherics typology to ambient factors, design factors and social factors. However, so far, these typologies were hiding gaps, as each did not include some environmental stimuli, with Berman and Evans (1995) continuing the development of a construct. These researchers divided the environmental stimuli into four main categories; a) exterior, b) general interior c) layout and design variables and d) point-of-purchase and decoration variables. Even though this typology filled various gaps of previous research that did not engage some elements, Turley and Milliman (2000) built on this model to fulfill the gap of the human absence. As such, they synthesised another category of human variables to complete the model. In their concluding suggestions, Turley and Milliman (2000, p. 207) draw the attention to the literature gaps on existed on the interplay and influence of various atmospheric stimuli such as the servicescape's location, crowding and floor coverings. .

Since the theoretical approach of environmental stimuli was discussed by various researchers (Baker, 1986; Booms & Bitner, 1982; Kotler, 1973; Milliman & Fugate, 1993; Turley & Milliman, 2000) empirical studies came into the arena (Chebat & Michon, 2003; Ha & Jang, 2012; Prentice et al., 2021). Consistent with the M-R Model, studies investigated the influence on emotional states (McGoldrick & Pieros,

1998), image evaluation, experience (Park et al., 1989; Milliman & Fugate, 1993; Olivier & Fletcher, 2000) and persuasion (Sharma & Stafford, 2000) on various contexts (see Table 1) such as retail stores (e.g. Skandrani et al., 2011; Ballantine et al., 2015; Biswas, 2019; Spence et al., 2014), restaurants (Ha & Jang, 2012; Biswas et al., 2017; Mannan et al., 2019), museums (e.g. Bonn et al., 2007; Loureiro et al., 2016), offices (Davis, 1984; Panigyrakis et al., 2021; Wineman, 1982), shopping malls (Lucia-Palacios et al., 2016; Vukadin et al., 2018; Idoko et al., 2019) and airports (Ali et al., 2016; Moon et al., 2017; Del Chiappa et al., 2019; Antwi et al., 2020). An introduction to the context will be presented, with the next sub-chapters discussing empirical research on experience, image and national identity in general and then into the specific context.

Context	**Papers**
Retail stores	Biswas, 2019; Ballantine et al., 2015; Spence et al., 2014; Skandrani et al., 2011
Restaurants	Mannan et al., 2019; Biswas et al., 2017; Ha & Jang, 2012
Museums	Loureiro et al., 2016; Bonn et al., 2007
Offices	Davis, 1984; Becker et al., 1983; Wineman, 1982
Shopping malls	Idoko et al., 2019; Vukadin et al., 2018; Lucia-Palacios et al., 2016
Airports	Antwi et al., 2020; Del Chiappa et al., 2019; Moon et al., 2017; Ali et al., 2016

Table 1 Indicative research of environmental stimuli in different contexts

2.2.2 Review of literature on holistic environmental stimuli

Various researchers aimed to investigate the interplay and interaction of atmospheric cues and their influence on experience (Ballantine et al., 2010, 2015; Spence et al., 2014), purchasing behaviour (Helmefalk, 2019; Helmefalk & Hultén, 2017), and image evaluations (Helmefalk & Hultén, 2017; Krishna & Schwarz, 2014).

Starting with Mattila and Wirtz (2001) they examined the interplay of cues, like scent and music, in a retail outlet on consumers' behaviour in terms of pleasure, arousal, store environment, buying and satisfaction. Results indicated that these specific atmospheric variables significantly affected all the dependent variables. Whether ambient scent and background music were evaluated positively, they favourably affected the environment's ratings, impulse buying behaviours, and satisfaction levels. However, the study's main conclusion was the importance of consumers' response to environmental stimuli. Precisely, it was found that the interaction of the two atmospheric cues, drove to more positive and stronger evaluations regarding the store experience than the music or scent influence individually. As a result, consumers' responses are enhanced when more stimuli interact with researchers suggesting further studies on the influence of more atmospheric cues (Mattila & Wirtz, 2001, pp. 286–287). A year later, Baker et al. (2002) following the atmospherics typology proposed by Baker (1986), examined the dimensions of social, ambient and design factors with their cues on consumers choice criteria and patronage intentions in a card-and-gift store. For the design perceptions they measured the colour scheme, facilities and merchandise, for the social perceptions the employees' appearance, friendliness and helpfulness, and lastly for the ambient perceptions the variable of music. Their analysis found that all the environmental dimensions significantly influence the store patronage intentions with the design stimuli to be influencing the most. It is worth mentioning that the store patronage intentions were measured through the willingness to recommend and buy and the shopping likelihood.

In their research, Ballantine et al. (2010) examined the atmospheric cues in electronic stores from a holistic perspective, through interviewing consumers. Their purpose was to see how the interplay of the cues affected their experience and determine which stimuli influence the most and least the participants. It was found that consumers paid attention mostly to the product display features, which was the dominant sensory variable. On the other hand, temperature, sounds and smell seemed to be the least influential stimuli on consumers' experience. For another study, Ballantine et al. (2015) aimed to investigate more atmospheric stimuli in a fashion retail store. The variables taken into measure were 57 from Turley and Milliman's typology. However, of all these variables less than half were identified to be considered by consumers.

In a similar setting, Helmefalk and Hultén (2017) conducted experiments in a retail store setting in order to examine the multi-sensory effect on the time spent and purchase behaviour. Their analysis found that consumers tend to evaluate a store holistically, considering all the cues together rather than focusing on stimuli such as visual in isolation. Additionally, it was evident that isolating the effect of visual cues on time spent and purchasing behaviour, had no impact compared to the multi-sensory effect examination. That is, authors concluded that a right design of a sensory environment can enhance the store's image and profitability (Helmefalk & Hultén, 2017, p. 8). Building on these findings, Helmefalk (2019) conducted a research in a furnishing store, investigating visual, auditory and olfactory stimuli both in isolation and together to test the influence on consumers browsing and purchase behaviour. For the first independent variable, it was found that reviewing the multi-sensory environment as a whole had the strongest impact, whilst the influence of the visual cue in isolation was found to have a not significant influence. As per the browsing behaviour effect on purchase behaviour, it was found to be an important mediator.

2.2.3 Evolution and modern applications in airport servicescapes

Several airports were developed under war conditions where they served as military bases, mainly during the Second World War (Halpern & Graham, 2013). While it was an industry owned by the wider public sector with national requirements, it has now been transformed into a private sector ownership under the management of "international players" (Halpern & Graham, 2013, p. 2). This metamorphosis occurred since the airports' deregulation in the 1970s, and as such, marketing-oriented strategies started to appear (Wattanacharoensil et al., 2016).

The privatisation or the public-private partnerships of airports, is mostly seen in European cases where more than the 20% of the airports are under partnerships (Halpern & Graham, 2013). Following this transition, airports have now adopted new marketing approaches where the commercialisation of the industry brought the focus on non-aeronautical products and services (Figueiredo & Castro, 2019; Prentice & Kadan, 2019; Wattanacharoensil et al., 2017).

With the new era of the airport industry, the attention is diverted to the air travellers; their expectations, needs and wants. Globalisation led to the fierce competition among airports (Del Chiappa et al., 2019; Moon et al., 2017; Rowley & Slack, 1999) with the airports developing new strategies aiming on differentiation (Bezerra & Gomes, 2019; Wattanacharoensil et al., 2017). Airports are now "multipoint service-provider firms" (Figueiredo & Castro, 2019, p. 14) as the waiting time of travellers is used to sell experiences and luxury or not items from sunglasses to jewellery (Rowley & Slack, 1999). Their profitability is largely based on non-aviation sources which explains the division of the passengers' time spending, to 20% on necessary airport processes and the rest 80% on leisure and retail activities (Del Chiappa et al., 2019; Wattanacharoensil et al., 2016).

The airports' environment and mainly the departure lounges, are designed in purpose in order to enhance the tourists' experiences (Figueiredo & Castro, 2019; Rowley & Slack, 1999). Due to its servicescape's "information rate" they tend to be high-load environments because of the variety and richness of sensory cues (Booms & Bitner, 1982, p. 39). Furthermore, they are considered to have an influencing role for developing a country's economy and society as airports are seen as gateways for new tourism experiences. Precisely, airports are supported to give the first and last impression of a destination country acting as ambassadors and shall incorporate national characteristics (Bezerra & Gomes, 2019; Figueiredo & Castro, 2019; Wattanacharoensil et al., 2017).

2.3 Emotions

A comprehensive examination of the social psychology and marketing literature reveals that establishing a universally acknowledged definition of emotion has been extremely challenging. Emotions are crucial in marketing and consumer experiences as they profoundly affect perceptions, decision-making, and behaviours (Jang & Namkung, 2009; Muramatsu & Hanoch, 2005). A well acknowledged attempt is the one by Bagozzi et al. (1999, p. 184), who describe emotions as:

> "a mental state of readiness that arises from cognitive appraisals of events or thoughts; has a phenomenological tone; is accompanied by physiological

processes; is often expressed physically (e.g., in gestures, posture, facial features); and may result in specific actions to affirm or cope with the emotion, depending on its nature and meaning for the person having it".

In the marketing literature, emotion and mood are often used interchangeably (Sherman et al., 1997). Bagozzi et al. (1999) suggest that the state of readiness that characterises an emotion tends to be more intense than that which can characterise a mood or an attitude. At the same time, they consider that the most decisive factor differentiating emotions from moods and attitudes is how they are manifested: Emotions need a specific stimulus, as they arise from the assessments a person makes about something, or himself the self.

As experience-seeking individuals, we expect our consumption choices to evoke feelings that explore, complement, and expand our emotional pallet. Ultimately, we make decisions that facilitate complex emotional experiences that allow memorable moments (Levine & Burgess, 1997). Links between emotions and decisions are well documented in decision-making research. If a customer is in an environment where negative feelings outnumber positive ones, he or she is less likely to recommend or revisit that place (J. H. Kim et al., 2022). It has been argued that the emotional reactions of individuals regulate the effect of external cues on actual behaviour. Information is processed by our emotional mechanisms in addition to rational thinking (Hanoch, 2002). Specifically, when an individual is satisfied with his or her surroundings it is reflected in his or her feelings. Individuals' perceptions and attitudes towards the environment are influenced by these emotional reactions (Manthiou et al., 2016). Thus, the richer the environment, the greater the emotional stimulation and in return the higher the likelihood for enjoyment.

2.3.1 The PAD Scale (Pleasure, Arousal, Dominance)

The environment and underlying context in which our experiences take place, play a crucial role on our emotional synthesis and subsequent behaviour. The illuminated importance of environment and the emotions it evokes led to the emergence of a dedicated subfield of psychology named environmental psychology. As a term, environmental psychology was effectively curated in the 70s by Proshanky, Ittelson and

Rivlin (1970) and Mehrabian and Russell (1974) to explore which emotions are evoked by different environmental stimuli and what types of behavioural responses are engaged. Mehrabian and Russell (1974) proposed, and empirically tested, a now prominent procedural framework that identified environmental Stimuli to influence the Organism's internal evaluation and emotions thus triggering an array of behavioural Responses. This is known as the SOR model (Stimulus, Organism, Response).

As predecessors of responses, emotions have great effects on decision making and underlying behaviour (Yerimou & Themistocleous, 2024a). Perhaps it is not surprising that organisations, including airports, who provide a platform for timely communication of dissatisfying experiences, can repair customer relationships to reduce negative WOM and preserve loyalty and revisit (Fouroudi et al., 2020). Most importantly the latter example accentuates the impact of human factors on customer experiences other than atmospheric stimuli.

Focusing on and defining emotions, the Mehrabian-Russell model proposes three emotional responses to environmental stimuli: *Pleasure, Arousal and Dominance* (PAD). Follow-up re-testing and re-measurements were undertaken since its introduction in 1974 (Foxall, 1997) with the model's popularity and application in marketing being propelled by the timely addition of Kotler's (1973) proposition of Atmospherics (deliberate environmental designs for stimulating purchasing behaviour) and Bitner's (Bitner, 1992a) work which brought attention to the impact of employee responses in airport environments.

In the SOR paradigm, organism (O) is defined as the "internal processes and structures intervening between stimuli external to the person and the final actions" (Sherman et al., 1997, p. 365). In other words, the individuals' emotional responses mediate the influence among the environmental stimuli and final behaviour. Three are the prominent inner states, commonly known as PAD responses· pleasure-displeasure; arousal-non arousal; and dominance-submissiveness (Bitner, 1992a). These states are derived from emotional and cognitive perspectives (Manthiou et al., 2016). Precisely, pleasure refers to consumers' subjective feelings towards an environment (Mehrabian & Russell, 1974). These emotional responses engage individuals' moods and attitudes towards the environment (Manthiou et al., 2016). Whether an individual is satisfied or dissatisfied towards an environment or atmosphere, this is demonstrated by his/her emotions·

pleasure or unpleasure (Ali et al., 2015; Y. J. Wang et al., 2011). In addition, arousal indicates the level of stimulation the individual raises towards an environment (Mehrabian & Russell, 1974). In other words, this is translated into the cognitive responses, "everything that goes in the consumers' minds" such as the beliefs, knowledge and attitudes that the target audience (i.e., visitors) has (Eroglu et al., 2001, p. 181). Dominance is whether the individual feels or not in control in the environment (Mehrabian & Russell, 1974). Relative research has conceptualised this category as the physiological responses which comprise characteristics such as pain and comfort (Bitner, 1992a; Manthiou et al., 2016).

Of the three types of responses, pleasure has been found to be an important predictor for consumers' behaviour, whilst dominance is the least important dimension, which has been removed from various studies (e.g. Donovan et al., 1994; Sherman et al., 1997). As such, it is supported that environmental stimuli positively influence consumers internal responses· pleasure and arousal (Sherman et al., 1997). These two types of responses "can adequately represent the range of emotions" since the exposure to atmospheric elements (Eroglu et al., 2001, p. 181). The three emotional responses of the Mehrabian-Russell model are analysed next.

Pleasure encompasses one's hedonic qualities and encapsulates the emotional items of happiness, satisfaction, hopefulness, pleasure, relaxation, and contentment. When examining the interplay between visual stimuli and evoked pleasure, research identified the pleasure-maximising colours of light as blue, purple, green, purple-blue and blue-green, with yellow colours yielding less pleasure (Valdez & Mehrabian, 1994). Aforementioned, relationships were also tested between different ethnic groups bringing forward different pleasure maximising results pertaining to colour between Caucasians and Asians (Lee & Lee, 2022). Most importantly, when examining evoked pleasure in airport environments, Moon et al. (Moon et al., 2016) identified pleasure to serve as a mediator in the relationship between airport environment and customer satisfaction.

Arousal is linked to the level of excitement one experiences and was originally identified as ranging from sleep to frantic excitement (Berlyne, 1960). Arousal, as a construct, comprises the elements of stimulation, excitement, frenzy, awakeness, arousal and jitteriness. As with other emotional responses, arousal levels are found to be stimulated by sound. Associating arousal with pupil dilation, Nunnally et al. (Nunnally

et al., 1967) identified an increase in dilation by increasing the decibel levels of sounds, while music that was rated as exciting, increased respiration rate and thus arousal (Ellis & Brighouse, 1952). Of equal interest is the fact that pleasant odors can arouse individuals, which is also true to very unpleasant ones (Shock & Coombs, 1937), albeit the latter can negatively affect pleasure.

Dominance reflects the level of the organism's autonomy and freedom to act in various ways within the environment, with the opposite end interested in restricting such freedoms. Dominance, as an amalgam term, is based on the sense of control, influence, feeling of being cared-for, importance, dominance and autonomy that the environment attributes to the individual. The environment's openness influences one's sense of freedom and feeling of dominance (Yani-de-Soriano & Foxall, 2006) while deliberate choice restrictions through environmental designs reduce its valence.

Emotions encapsulated by Pleasure, Arousal and Dominance (PAD for short) consequently impact behavioural responses of what Mehrabian and Russell label Approach or Avoidance. The mediating examination of emotions within airport settings produces valuable results on precisely what behavioural responses it facilitates. For example, high levels of pleasure positively impact customer satisfaction (Moon et al., 2016) while positive emotions influence behavioural intentions like positive word of mouth and willingness to pay more within a given airport setting (Jeon & Kim, 2012). Moon et al. (Moon et al., 2016), focused on arousal and pleasure excluding dominance from their investigation. Building upon their work, the proposed framework seeks to examine the impact of all three PAD elements on airport satisfaction and extend further our understating on how satisfaction impacts the behavioural intentions of WOM and revisit (Yerimou, Panigyrakis, et al., 2022a).

2.3.2 The PAD scale applied in airports

In the airport context, emotions tend not to gain enough attention. Precisely, in the research of Ali et al. (2016), the researchers aimed to examine the effect of the airport physical environment on emotions, and consequently on passengers' satisfaction. Speaking of emotions, the study examined the effects on the specific emotion of delight – under the umbrella of arousing emotions. Results showed that environment was a strong contributor towards delight, and the latter was also a significant driver towards

passengers' satisfaction levels. The more positive the evaluations of airport environment the more positive passenger's delight. Consistent research is the one of Ariffin and Yahaya (2013). The researchers examined the same arousing emotion of delight due to the airport image which was constructed from environmental stimuli. Results are similar to Ali et al.'s (2016) since the significant effect of airport image on travellers' delight was found.

In another attempt, Ryu and Park (2019), aimed to explore the experiential effects of an airport's experience on travellers' pleasure, satisfaction, and image. Compared to the previous ones, the researchers investigated the emotion of pleasure rather than arousal. To be more precise, they examined the four dimensions of experience (i.e. entertainment, education, esthetic, and escapist). Even though their dimensions did not rely on physical or human-related stimuli, the construct of esthetic experience engaged stimuli like design which is an environmental dimension. Based on their results, it was found that the esthetic experience of the airport significantly affected tarvellers' pleasant emotions. Until this point, it was evident that some researchers focused on the arousal dimension of emotion while others on the pleasant dimension. Park and Park (2018) examined emotions in the airport context, in a broader way. They aimed to explore the effects of the airport attributes on travellers' perceived servicescape, emotional response, customer satisfaction, airport image and behavioural intentions. When measuring emotional responses, the aforementioned researchers did not rely on a specific emotion like the previous researchers (Ali et. al., 2016; Ariffin & Yahaya 2013). Specifically, they examined emotions as a higher-order construct constituted of happiness, pleasure, irritation, boredom and stifling. In their analysis, they underlined the importance of the perceived servicescape on emotions, indicating the strong and significant effects. Meanwhile, it was also concluded that emotions were important contributors to travellers' satisfaction levels.

Yet, to the best of the authors' knowledge, in the marketing and tourism literature the studies that investigated emotions either isolated or holistically are the following (see Table 2):

Authors	Year	Key Findings	Journal
Ryu and Park	2019	Esthetic experience (i.e. design) → Pleasure	Sustainability
Park and Park	2018	Perceived servicescape → Emotional response	Journal of Air Transport Management
Ali et al.	2016	Physical environment → Delight	Tourism Management
Ariffin & Yahaya	2013	Airport environment → Delight	Journal of Air Transport Management

Table 2. Indicative research of holistic environmental stimuli

2.4 Satisfaction

Someone's excitement or dissatisfaction might be expressed shortly after an interaction. Similarly, an individual's whole experience might determine whether they are satisfied or dissatisfied. Because definitions of satisfaction vary, one common explanation in the marketing literature frames satisfaction as the alignment of expectations and experience (Petrick et al., 2001). In most cases, is investigated as a collection of evaluations that serve as a main motivator for intentions and behaviour (García-Sánchez et al., 2013). Individuals place a high value on their experiences with various service providers. This explains why corporations consider satisfaction to be one of the most reliable indicators of future behaviour intentions. The findings presented above provide a challenge to practitioners. The environment, in particular, is recognised as an aspect that can add to people's well-being. That is why its significance is emphasised, as well as its design in such a way that it pleases people and generates pleasurable experiences. Individuals' experiences may be created and managed using their newly formed environment as a tool. After all, this is one of the primary reasons that attention is drawn to the numerous stimuli that contribute to the creation of a holistic environment. Perhaps stimuli that do not exist precisely in the context of airports must be given meaning.

In the marketing and travel literature, Moon et al. (2017) underlined the significant impact of layout accessibility and facility aesthetics on the satisfaction of travellers. In a

similar vein, the study conducted by M.-H. Kim et al. (2016) highlighted the direct and significant impact of facilities and accessibility factors on satisfaction. Likewise, Batouei et al. (2020) conducted a study to examine many aspects, including the airport servicescape and its components such as lighting, seating, and design, and their significant impact on travellers' satisfaction. Due to the acknowledged significance of satisfaction, academics have directed their attention to holistically examining the airport environment. Specifically, researchers currently tend to analyse the impacts of the airport environment as a higher-order construct (Ali et al., 2016; Prentice & Kadan, 2019). A research by Mainardes et al. (2021) aimed to investigate the effect of different airport service quality indicators on travellers' perceived value, image and satisfaction. The researchers categorised the dimension of airport service quality into the constructs of employees, comfort, convenience, reliability and handling of abnormal conditions. Regarding the depended variable of satisfaction, the analysis of 518 questionnaires revealed that airport service quality as a second order construct significantly and directly influences travellers' satisfaction. Airport service quality was also investigated upon its effect on satisfaction by Prentice and Kadan (2019). In their examination, they examined airport service quality as a holistic construct comprising facilities, check-in, servicescape, security and ambience. Consistent with Mainardes et al. (2021), airport service quality was mentioned as a significant contributor to passengers' satisfaction. Speaking of satisfaction and airport service quality, Hong et al. (2020) investigated airport service quality dimensions and their effect on overall satisfaction. They divided the airport service quality into three subconstructs: interactional service quality, physical environmental quality, and outcome quality. The interactional quality involved questions regarding employees, the physical environment quality was consisted of questions dealing with cleanliness, temperature and atmosphere, whilst the outcome quality relied on items based on convenience, baggage and signs. Their analysis focused on airport users' findings, indicating that all three dimensions were once again found as significant drivers on travellers' overall satisfaction.

Similarly, Ali et al. (2016) tried to investigate the influential role of the airport physical environment on passengers' delight and satisfaction, with a deeper focus on specific environmental stimuli overlapping some service quality dimensions as investigated by other authors. Contrary to Mainardes et al. (2021), the research of Ali et al. (2016)

examined the overall influential of airport environment, consisting of layout, ambience, functionality, and cleanliness. Their analysis revealed that airport environment significantly contributed to the enhancement of passengers' delight and satisfaction, indicating the airport environment's important role. The impact of different stimuli, such as arrangement, staff, and safety, has become evident due to their considerable consequences. Consequently, the airport environment has gained a new significance in terms of being thoroughly examined, with a focus on previously unexplored topics such as the human-related aspects relating to personnel and their behaviour. According to Yerimou and Themistocleous (2023), earlier measures have shown that satisfaction is a dependable predictor of future behavioural intentions. Within the airport industry, airports with higher satisfaction levels are more competitive. This competitiveness allows them to attract more airlines and passengers, resulting in higher revenues (Halpern & Graham, 2013). Moreover, increased levels of satisfaction foster travellers' loyalty, which in turn leads to repeated patronage and favourable word-of-mouth recommendations (Bezerra & Gomes, 2016). Similarly, Park and Park (2018) were also among the researchers that investigated both the influential role of airport perceived servicescape on satisfaction and later effects of satisfaction on behavioural intentions and image evaluations. Focused on the environment-satisfaction effect, the researchers tended to examine the airport servicescape effect as second-order construct on satisfaction. They chose to examine the effect of the perceived servicescape relying on travellers' expectations. So as in previous results, so in the study of Park and Park (2018) the perceived airport servicescape had been mentioned as a significant and influential driver on travellers' satisfaction levels. In an overview of the literature review, it can be said that the studies in the travel and marketing literature that focused on airport environmental effects and satisfaction can be summarised into the following (see Table 3):

Authors	**Year**	**Key Findings**	**Journal**
Kim et al.	2016	Accessibility, facilities → satisfaction	Journal of Travel and Tourism Marketing

Ali et al.	2016	Physical environment → satisfaction	Tourism Management
Moon et al.	2017	Layout, aesthetics → satisfaction	Journal of Travel and Tourism Marketing
Park and Park	2018	Perceived servicescape → satisfaction	Journal of Air Transport Management
Bezerra and Gomes	2019	Airport service quality → satisfaction	Tourism Management Perspectives
Prentice and Kadan	2019	Airport service quality → satisfaction	Journal of Retailing and Consumer Services
Batouei et al.	2020	Servicescape → satisfaction	Research in Transportation Business and Management
Hong et al.	2020	Physical environment → satisfaction	Journal of Retailing and Consumer Services
Mainarders et al.	2021	Airport service quality → satisfaction	Research in Transportation Business and Management

Table 3. Indicative research of environmental stimuli on satisfaction

2.5 Corporate Image

It is widely accepted that image is the sum of impressions created on peoples' minds about a firm, product or country (eg. Dichter, 1985; Han et al., 2020), with such images being vital for the overall evaluation of a company or service (Grönroos, 1988; Panigyrakis et al., 2020). Concerning the sensory marketing, it has been stated that environmental stimuli strongly correlate with image (Philip Kotler, 1973; Vukadin et al., 2018). Such impressions can be formed through direct or indirect interactions between the individuals and the kind of entity (Dichter, 1985; Han et al., 2020). The field of image encompasses the cognitive and affective dimensions. The affective component deals with the feelings individuals engage toward an object, whilst the cognitive component deals with the beliefs toward of that object (Bagozzi & Burnkrant,

1979; Russell & Pratt, 1980). Environmental stimuli are supported to be under the umbrella of emotions where environments are evaluated from the affective perspective (Nghiêm-Phú & Suter, 2018; Russell & Pratt, 1980).

Speaking of the airports, the airports' affective image can be defined as the visitors' feelings towards the airport "whether it is interesting or boring, relaxing or stressful" (Nghiêm-Phú & Suter, 2018, p. 72). The eight affective descriptors were presented by Russell and Pratt (1980) and are being are used in various studies (eg. Artuğer et al., 2013; Bogicevic et al., 2016; Byon & Zhang, 2010).

In the airport context, airports' environment became the most influential dimension on the airport's image, which aroused researches investigating more the role of environmental stimuli and generally environmental stimuli (Han & Hyun, 2018; Ifeanyichukwu & Peter, 2018; Yerimou & Panigyrakis, 2020). Airport image refers to the overall impression of the airport servicescape and design derived from the passengers' perceptions (Bogicevic et al., 2016; Park & Park, 2018; Helmefalk, 2019). Furthermore, it has been confirmed that positive airport evaluations are assumed to result from managing an airport' image through environmental stimuli (Oel and Berkhof, 2013; Kim et al., 2016; Moon et al., 2017). In this essence, if an airport seeks on achieving a competitive advantage among airports it must build on its image (Graham et al., 2008). That is, the importance of the image can be reflected through the airport revenues, word-of-mouth (WOM), loyalty and differentiation (eg. Grewal et al., 1998; Bezzera and Gomes, 2016; Park and Park, 2018; Han et al., 2019).

The environment can be used to enhance, position or reposition an image (Bitner, 1992a; Booms & Bitner, 1982). The origins of environmental stimuli are related with the concept of image which represents the "reality" of the store (Milliman & Fugate, 1993, p. 67). Precisely, as the same authors discussed, the whole atmosphere constructed by the atmospheric variables can enhance the holistic image (Milliman & Fugate, 1993). Since the importance of the environment has gained attention, research has drawn up to important results which indicated that servicescapes are important mediators for a company's image (Baker et al., 1994). Stemming primarily from business research, a favorable corporate image of branded restaurant chains, for example, is driven by environmental stimuli like design, decoration and cleanliness (Erkmen & Hancer, 2019). Literature theorizes that an environment as a whole

improves the overall image of a place (Milliman & Fugate, 1993) yet applications of the latter are relatively limited within airport servicescapes.

2.5.1 Airport Image

Various studies aimed to examine the effects of environmental stimuli on airports' image, indicating their significant effect. Initially, Park and Park (2018) aimed to investigate an airport's servicescape's effects on different variables, including airport image. Based on their findings, airport image was found to be significantly affected by travellers' satisfaction evaluations on airport's servicescape. Likewise, Bezerra & Gomes (2019) aimed to examine the main drivers of passengers' loyalty, with airport image found as an important driver in the above process. After examining different relationships, these authors concluded that airports need to enhance their environment with cultural characteristics to lead to "pleasant experiences", affecting therefore the airport image (Bezerra & Gomes, 2019, p. 155). Speaking of pleasant experiences, pleasure was of the emotions that were measured while investigating the effects on airport image. To be more precise, Ryu & Park (2019) aimed to investigate the effects of an airport's experience economy on pleasure, satisfaction and airport image. Experience economy was measured in terms of entertainment, educational, aesthetic and escapist experience. Environmental stimuli such as design and environment were measured under the sub-construct of aesthetic experience. According to the findings, airport image was measured as the authors' conceptual model's final outcome, where pleasure and satisfaction were marked as statistically significant. Until this point, airport image was measured either as a driver to behavioural intention (i.e., loyalty) or as a consequence of travellers' evaluations (i.e., satisfaction, pleasure).

In terms of environmental effects on airport image, Han *et al.*, (2019), aimed to investigate the role of green atmospherics and their influence on mental health value, airport image and loyalty on visitors and workers. Firstly, it needs to be clarified that the authors defined the green atmospherics as green physical surroundings, green resting areas, green interior decoration with living plants and flowers, glass walls for natural lighting, and the use of fresh air or alternatively the use of natural scents. Bearing in mind the results on the visitors as this doctoral thesis aims to investigate the visitors' (i.e. travellers) perceptions, it was found that green atmospherics significantly

influenced airport image. As such, authors underlined in their conclusions the importance of both airport environmental stimuli and image, as strong indicators for airport loyalty. At the same time, they discussed the criticality of airport image with "airport operators need to make every endeavour to improve the image of the airport" (Han, Olya, et al., 2019, p. 10).

In a further research, Mainardes et al. (2021) through their work answered a similar question on how airport service quality affects airport image. They focused on constructs like service reliability, convenience and employees, but such predictors are different to those of a physical environment that captures, for example, elements of ambiance. Nevertheless, considering airport servicescape as a second-order construct, it had a significant direct effect on airport image. Taking into account that service quality dimensions of airports differ in some extents with the airport environmental effects, Wattanacharoensil et al., (2021) in their study, developed a multidimensional scale integrating servicescape and service quality dimensions, and examined individually their effects on airport image. Results indicated that specific attributes were marked as significant towards airport image. Precisely, ambience, security, basic facilities (i.e., cleanliness, availability of restaurants and WiFi), gate area and leisure and entertainment were important environmental stimuli that significantly influenced airport image. The studies found in the marketing and tourism literature about airport image, imply that the variable of image mostly derives from mediators such as satisfaction and emotions. Literature investigating airport image as a consequence of airport environment remains limited, underlying the importance of its further examination.

2.6 Sense of Place and Authenticity

The issue of uniqueness and differentiation has been stated by numerous research (eg. Rowley & Slack, 1999; Gustafson, 2001; Kolar & Zabkar, 2010; Ariffin et al., 2015). The general literature in regards to the term of sense of place has been supported to be vague and yet complex (eg. Campelo et al., 2014; Najafi & Shariff, 2011; Shamai & Ilatov, 2005; Shamai, 1991). Still there is an interest on the investigation of the term from different perspectives (Volgger, 2020; Ali et al., 2016; Ariffin & Yahaya, 2013; Kudryavtsev et al., 2012). Speaking of places, they are vital for the formation of human behaviour through communicating a unique identity (Najafi & Shariff, 2011).

According to the same authors, they are made up from physical and symbolic features (i.e., meanings and messages) through which individuals perceive, experience and respond. Places are the combination of three components, (a) the physical setting (b) the activity (c) and the meaning (Relph, 1976). Hence, a holistic concept is felt through a "total sensual experience" (Sell et al., 1984, p. 75 as cited in Shamai, 1991). That is, through the senses individuals can understand and interpret a place or physical setting while experiencing it (Stedman, 2003; Shamai, 1991). At this point it is worth mentioning that the individuals' senses are subjective, resulting from the whole atmosphere and ambience of the place experience (François Lecompte et al., 2017). Given the extant literature, Najafi & Shariff (2011, p. 188) indicated that the "experience of place is one of the most important factors in sense of place". Therefore, the whole concept of sense of place refers to an individual's particular experience in a particular context. That is, sense of place is an indicator which distinguishes some places among others, making them "memorable" for visitors (Abou-Shouk et al., 2018, p. 178). As this experience is lived through the humans' senses, the sense of place can be explained as the "emotional connection with place via understanding its symbols and meanings" (Najafi & Shariff, 2011, p. 188).

The relationship between the individual and a place has been explained through different concepts, that of (a) sense of place, (b) place identity and (c) place attachment (Najafi & Shariff, 2011). The term of sense of place has been initially discussed as not just a physical setting but as the construction of the place interpretation through the lived experience, which is full of meanings (Tuan, 1977). The dimensions of sense of place tend to differ in terms of their effect on the visitors' experience and general behaviour (Abou-Shouk et al., 2018). Numerous research has aimed to define sense of place and its components (eg. Campelo et al., 2014; Shamai & Ilatov, 2005; Stedman, 2003). In another attempt for the definition of sense of place, it is explained as a "three-component view" comprised of a) physical environment (physical setting), b) human behaviours and c) social or psychological processes (Stedman, 2003, p. 671). Similar research explains the term as a combination of two elements: the physical environment and the social interactions in that place (Shamai & Ilatov, 2005). Furthermore, Stedman (2003) indicated that sense of place has in its basis the symbolic meanings portrayed through the setting. The common attribute that the literature gives to the term is the

symbolic meanings given to a place that arise from lived experiences (Campelo et al., 2014; Kudryavtsev et al., 2012). Sense of place is often correlated with the place identity. However, the main differentiation depends on its focus on the lived experience (François Lecompte et al., 2017). Moreover, a place needs to be recognizable and communicate an identity to lead to a sense of place (Lynch, 1998, as cited in Najafi & Shariff, 2011). As such, sense of place can be the medium towards an experience, with a place's atmosphere being an indicator of communicating the context's spirit (Campelo et al., 2014). Therefore, it is plausible to be supported that sense of place stands on the uniqueness of a context, while representing specific features (i.e. local characteristics) of a place which in turn drive to an experience (Campelo et al., 2014). Thus, according to the same author, in order to create a sense of place, a specific selection of symbols shall me made to purposefully communicate specific meanings or symbols (Campelo et al., 2014).

2.6.1 Placelessness

Nowadays, destinations should be portraying their distinctive images, emphasizing the country's identity and culture (Campelo et al., 2014). Hence, from a strategic perspective, marketeers and architects need to take into account both emotional and functional facilities while designing places (Najafi & Shariff, 2011). The foregoing statements, explain the generation of the term placelessness which refers to the places that do not have nor communicate a unique identity, personality or sense of place (C. J. Smith & Relph, 1978). In other words, placelessness is supported to exist in "culturally unidentifiable environments" (Najafi & Shariff, 2011, p. 187). Alternatively, it occurs when environments lack a sense of place and are designed to not communicate place and culture, resulting in "anonymous spaces" (C. J. Smith & Relph, 1978, p. 46). According to the same authors, placelessness otherwise an inauthentic sense of place, occurs when there is an "uncritical acceptance of mass values and techniques" (C. J. Smith & Relph, 1978, p. 46). Postmodernism[4], has driven to the sameness in the design

[4] Postmodernism refers to a globalised era where lifestyles and conditions are similar among countries, with Western countries having the greatest influence both in terms of economy and culture (Firat, 1992;

of buildings leading to the diminishing of the sense of place (Shamai & Ilatov, 2005). Authors have underlined the role of power on sense of place. Precisely, places are put into global and local situations, or alternatively the 'we' or the 'other' (Shamai & Ilatov, 2005, p. 468). According to these authors, the power structures construct places in regards to the sense of place, which often drives to various inequalities. In the same essence, François Lecompte et al. (2017), supported that sense of place in different contexts are under the management of public authorities which receive the humans' intentions upon the management of the place.

The term of sense of place is been investigated and includes various concepts, such as the place attachment, national identity, or regional awareness (Shamai, 1991). However, for the thesis' purposes, sense of place is been investigated from the narrow viewpoint of national identity representation through the atmosphere design.

2.6.2 National Identity and Authenticity

The field of nations, culture and national identity has concerned the research community for years. Numerous research has examined both theoretically and empirically the definition, influence and implication of what it is called 'national identity' (e.g. C. J. Smith & Relph, 1978; A. D. Smith, 1994; Keillor & Hult, 1999; Palmer, 1999; Ariffin & Yahaya, 2013). Starting from the definition of the term, national identity are the customs, traditions and behaviours that characterize and are shared in a specific community (A. D. Smith, 1994). Alternatively, national identity "is the extent to which a given culture recognizes … its unique characteristics" (Keillor & Hult, 1999, p. 67) which can be used for touristic and destination image purposes that enhance its citizens' pride (Hitchcock, 1998) and attracts foreign direct investment (Keillor & Hult, 1999). Due to globalisation, the phenomenon of placelessness or nation-ness exists among firms and companies, that standardize their practices and designs, adopting a particular language and leaving aside their identical characteristics that make them unique (Gustafson, 2001; Hay, 1998; Keillor & Hult, 1999; Palmer, 1999; C. J. Smith & Relph, 1978). Speaking from the businesses perspective, companies and services that are active in an international level and are recognising and matching their cultural characteristics

---

Firat & Shultz, 1997). Multiculturism and digital technologies reflect societies which are now giving attention to symbols and images (Brown, 1994).

can achieve a competitive advantage (Keillor & Hult, 1999, p. 66). In the national identity terms, national identity help countries to distinguish their characteristics that make them unique and different among others (Kolar & Zabkar, 2010; Rowley & Slack, 1999; C. J. Smith & Relph, 1978). Attractions such as museums and parks give the national identity vein into their settings, resulting in the visitors "sense of belonging" (Palmer, 1999, p. 318). In this essence, national identity is being explored from the perspective of sense of place.

Consistent examinations in tourism research promote the importance of authenticity for tourist experiences (Gardiner *et al*., 2022; Rickly and McCabe, 2017) linking the latter with tourist loyalty and destination revisit. For example, literary and dark tourism have authenticity embedded in the motivation and purpose of travel (Jiang and McCabe, 2023; Ingram *et al.*, 2021). Researchers have correlated the term of sense of place with authenticity in heritage sites and hotels (Ariffin *et al.,* 2015) yet is important to reflect on previous attempts made to define what the term encapsulates.

In essence, sense of place embeds authenticity in servicescapes and promotes unique country characteristics that differentiate an environment from that of another country. Symbols, images, and artworks convey sense of place stimuli through cultural artefacts, historical artworks and nature representations among others (Rowley and Slack, 1999). Importantly, a place must be recognizable and communicate an identity to transfer a sense of place to travellers. As such, sense of place can be the medium towards an experience, with the atmosphere of a place being the instrument through which the spirit of the visited country is communicated.

In the airport environment, the term of sense of place and precisely national identity is used to communicate differentiated environments (Yerimou, Themistocleous, et al., 2022). Rowley and Slack (1999), chose to observe various airport departure lounges having as main chief the timelessness and placelessness. The authors examined the environment of departure lounges into four dimensions; servicescape and ambience, range of retail outlets and products, marketing messages and communication and customer experience. While observing ten environments, they indicated the absence of place and time and their importance in our global era. This conclusion mirrors the situation that has motivated the inclusion of this variable in the current doctoral thesis. It is worth mentioning that sense of place is accounted as a component of airport

experience by some authors (Batouei et al., 2020; Wattanacharoensil et al., 2016). For instance, the interior design, the sculptures and generally the cultural artefacts reflected in an airport's terminal form an "object-authenticity" (Wang, 1999 as cited in Wattanacharoensil et al., 2016, p. 324). According to the authors, such additional attempts in the airports' environments enhance visitors' overall experience. The experience is mainly driven from the physical environment, so airports are "responsible for messages, values, cultural interpretation and symbols" (Rowley & Slack, 1999). Applying historical features in a place, creates a meaning which leads visitors having more enjoyable experiences (Abou-Shouk et al., 2018 as cited in Ram et al., 2016).Wattanachreonsil et al. (2021) accounted sense of place as a mediator between the sub-constructs of airportscape and airport and destination image. Based on the results, sense of place had a significant mediating effect. Similarly, Batouei et al. (2020) chose to investigate sense of place as directly affecting satisfaction. In their research of 377 travellers, findings revealed that sense of place was not supported for directly impacting travellers' satisfaction.

Research shows that sense of place also moderates the relationship between a physical environment and airport satisfaction and delight (Ali *et al.*, 2016; Ariffin and Yahaya, 2013). In airport servicescapes specifically, Ali et al. (2016) identified the moderating effects of sense of place in Malaysian airports' environment-satisfaction and environment-delight relationship. In both examinations, national identity (otherwise sense of place) was found to have significant moderating effects, underlying its importance for further research. This research expands on Ariffin and Yahaya's (2013) findings that concentrated solely on environment and delight relationship in a similar airport. Further examinations found interior design, sculptures and general cultural artefacts to be a reflective form of object-authenticity (N. Wang, 1999), a finding that Volgger (2020) complements with architectural designs. A moderating investigation expands previous mediating (Wattanachareonsil *et al.,* 2021) or direct (Batouei et al., 2020) examinations, by providing linkages between constructs that enhance the precision and efficacy of respective interventions (Hayes, 2022).

On the other hand, some studies mentioned the insignificant effects of portaying a country's identity in the airports' servicescapes. To be more precise, Van Oel & Van den Berkhof, (2013) investigated various airport design characteristics and passengers'

preferences. Using the Turley & Milliman's categorisation (exterior architectural design factors, interior architectural design factors, layout and design factors, point-of-purchase and decoration factors and human factors) they examined through visualisations what was most preferred per section from the travellers. In terms of sense of place, findings revealed that passengers did not want the country's characteristics (Holland) to be reflected in the design of the terminals.

2.7 Responsiveness

Organisational responsiveness is crucial in establishing lasting relationships as it demonstrates the organization's consideration for a consumer's valuable reaction (Grönroos, 1999). Therefore, it is reasonable to acknowledge that responsiveness does constitute a component of relationship marketing. Daily, organisations are compelled to adjust and react to the ever-changing demands of consumers. The concept of responsiveness can be attributed to the factors determining service quality (Parasuraman et al., 1985) or to customers' expectations regarding service (Grönroos, 1999). The literature discusses the new breed of customers seeking increased responsiveness to the evolving competitive environments. Organisations are engaged in global competition, which puts responsiveness as both a problem and a capability for companies to attain a competitive advantage (Reichhart & Holweg, 2007).

The definition of responsiveness remains ambiguous and has not been established in the existing literature. The factors contributing to responsiveness are still diverse, "the confusion and ambiguity about a concept that often represents a critical competitive capability seriously inhibits its effective management" (Upton, 1995, p. 205). Gindy et al. (1999) established a definition of responsiveness as the capacity of a production system to promptly and effectively adapt to both expected and unforeseen changes that are prevalent in the current manufacturing environment. The concept of responsiveness, as defined by Barclay et al. (1996), refers to the ability of a firm to react to and/or predict events to effectively manage, control, and benefit them.

More recently, Reichhart and Holweg (2007) provide a definition of responsiveness as the ability of a system to promptly adapt its output within the four flexibility types: a) product, b) mix, c) volume, and a) delivery, in reaction to an external stimulus. Another prominent component present in the majority of definitions is the concept of time,

which is expressly defined by the term "appropriate time scale" and implicitly defined by the term "quickly" (Upton, 1995). (Chen et al., 2004). Although speed and formality are certainly potential attributes of responsiveness, the quality of responsiveness is more accurately understood as a higher-order element that is influenced by speed and formality (Souchon et al., 2004).

Responsiveness in the social science literature refers to the capacity of an organisation or individual to recognise, evaluate, and respond to stimuli in its environment. Responsiveness is highly associated with adaptability, which indicates the ability of an organisation to effectively address changing issues (Hannan & Freeman, 1977). From the standpoint of an organisation, such degree of effectiveness serves as a driving force for sustaining competitiveness. To be effective, responsiveness necessitates both the ability to perceive external signals and the internal flexibility to convert these signals into decisive actions. Therefore, it encompasses the ability to perceive and understand the external world and adjust internally (Weick & Roberts, 1993).

2.7.1 Environmental Responsiveness

The present research aims to analyse responsiveness from an environmental paradigm. One particular use of responsiveness is in the context of environmental responsiveness, which pertains to the manner in which individuals or organisations adjust to the physical, social, and cultural surroundings in which they interact.

Given the complicated composition of the airport environment, several scholars have analysed it from many viewpoints. Nevertheless, the level of environmental consciousness among travellers has not been examined in the specific field of interest. Environmental responsiveness is the degree to which humans respond to and experience beneficial effects from environmental stimuli (McKechnie, 1974). McKehnie (1974) proposed the concept of environmental responsiveness as a fundamental foundation for comprehending the impact of the surrounding environment on human behaviour. As defined by McKehnie, environmental responsiveness refers to the ability to effectively perceive, understand, and respond to environmental stimuli. Recently, environmental responsiveness has become increasingly important in discussion on sustainability and ecological adaptation in different contexts.

A prior investigation conducted by Eroglu et al. (2003) revealed that the level of environmental responsiveness controls the correlation between an environment and positive emotions. Although the importance of this relevance was emphasised, it is important to mention that, to the best of the authors' knowledge, only one study has examined its influence. Hence, considering its importance in various domains such as retail, examining the behaviour of travellers towards the surroundings can yield a more profound understanding of the elements that influence their satisfaction. Within this particular setting, McKehnie's (1974) framework continues to be applicable, providing significant perspectives on how environmental factors influence both individual and group actions.

3 Conceptualisation and Research Hypotheses

3.1 Introduction

The proposed conceptual models of the research (Figures 18 and 20) combine theories from the marketing and environmental psychology literature, regarding the role of environment. The models are adapted based on the theories of Mehrabian and Russell (1974) and Donovan and Rossiter (1982) and are an extension of the SOR (Stimulus – Organism – Response) Paradigm. Airport environment is presented as the stimuli, emotions as organisms and airport image and satisfaction as the responses. The study aims to build and verify a new model through considering the mediating effect of emotions and the moderating effects of sense of place and environmental responsiveness.

3.2 Theoretical Background

3.2.1 The S-O-R Paradigm

One of the most prominent theories in environmental psychology is the Stimulus-Organism-Response paradigm (SOR), one of the earliest frameworks first proposed by Mehrabian and Russell (1974) and of which it continues to be used widely (Choi & Kandampully, 2018). The precise theory model helps explain behaviours in environments as mediated by environmental stimuli and emotional responses (Manthiou *et al.*, 2016; Donovan *et al.*, 1994). Otherwise, various relative studies investigating environmental stimuli behaviour have used the SOR paradigm to explain behaviours resulting from environmental stimuli and emotional states (Roux et al., 2020). Hence, the precise model serves as the theoretical basis for the current thesis.

In 1902, Ivan Pavlov pioneered a fundamental idea in behavioural psychology with his investigation on classical conditioning, which clarified the connection between stimuli and instinctive physiological reactions. The tests conducted by Pavlov provided evidence that the repeated pairing of a neutral stimulus with an unconditioned stimulus could ultimately evoke a conditioned response. Pavlov's research with dogs revealed that the vibration of a bell, originally a neutral stimulus, might, through repeated

associations with the introduction of food (the unconditioned stimulus), develop the ability to elicit salivation (the conditioned response) even when there is no food present (Pavlov, 1902).

These findings established the foundation for comprehending the process of associative learning, demonstrating that repeated exposure to certain cues can condition particular behaviours. Pavlov's research yielded a vital understanding of how environmental elements and stimuli influence behaviour, serving as a fundamental element of classical conditioning theory and influencing subsequent advancements in behaviourism and learning theory.

Subsequently, Mehrabian and Russell (1974) coined the M-R model which is based on the Stimulus-Organism-Response (SOR) paradigm to investigate the field of environment. The model engages various environmental attributes, the mediating effect of internal emotional states and a series of behavioural outcomes (Sherman et al., 1997). Since its application was limited in empirical studies, Donovan and Rossiter (1982) extended the model in the same basis (Figure 1), and as shown in the following figure's components, various Stimuli (S) are investigated as having an effect on individuals' emotional responses (O), which leads in turn to approach or avoidance behaviour (R) in retail or service settings (Choi & Kandampully, 2018; Donovan et al., 1994; Mehrabian & Russell, 1974).

The Mehrabian-Russell (M-R) model and the Stimulus-Organism-Response (S-O-R) framework both examine the impact of environmental stimuli on behaviour, although they vary in their scope and depth of analysis. The M-R paradigm emphasises emotional reactions (pleasure, arousal, and dominance) as intermediaries between stimuli and behavioural outcomes, such as approach or avoidance, while giving minimal consideration to cognitive processes. On the other hand, the S-O-R paradigm combines emotional and cognitive reactions. It analyses the impact of stimuli on the "organism" phase, which includes internal mechanisms such as perception, evaluation, and emotional scenarios, subsequently influencing a wider array of reactions, including behaviours and attitudes. The S-O-R framework in airport research facilitates a comprehensive understanding of how environmental cues, such as sense of place and cultural factors, influence travellers' emotions and their cognitive assessments of satisfaction and image. The S-O-R framework is appropriate for this study as it

facilitates the integration of sense-of-place stimuli and traveller responsiveness, encompassing both emotional and cognitive processing.

Testing this relationship with promising results, it has been concluded that environmental stimuli, otherwise atmospherics or atmospheric cues, affect individuals' emotional states without necessarily being perceived and can affect either positively or negatively humans' behaviour (Roux et al., 2020; Sherman et al., 1997).

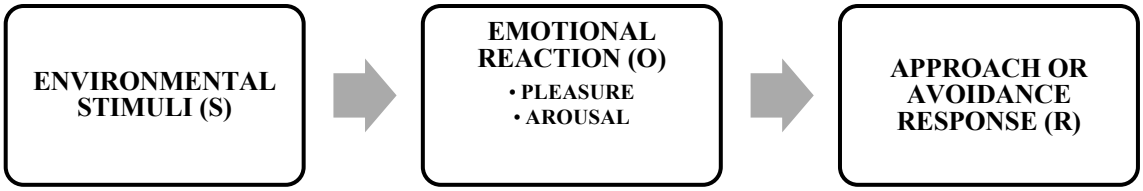

Figure 1. **Modified Mehrabian-Russell Model.**

As discussed in Chapter 2.2.1 "The evolution of environmental stimuli", Kotler is acknowledged as one of the pioneers in introducing the concept of atmospherics. In his landmark work, Kotler (1973) emphasised that consumers do not purchase a physical thing, but rather the "total consumption package" (p. 48). Expanding upon his previous remarks, he more precisely defined the significance of atmosphere in a purchasing decision. He pioneered the term "atmospherics" as the deliberate creation of buying environments that increase the likelihood of a purchase (Kotler, 1973, p. 50). Subsequently, environmental research has generated great interest among scholars in exploring the significance and aspects of the environment. Several academics have put forward different taxonomies for classifying environmental stimuli (Booms & Bitner, 1982; Baker, 1986; Bitner, 1992; Turley & Milliman, 2000).

The present thesis, draws on different researchers' frameworks (i.e., Ali *et al.*, 2016; Batouei *et al.*, 2020; Bitner, 1992a), and precisely is focused on the dimensions of ambiance, layout and signs, cleanliness, and human-related variables. Although the current research extends similar thought, it uses a causal modelling approach to

modelling and analysing the airport context. Furthermore, the applicability of the SOR paradigm is being tested in the airports' environments.

Since the effects of environmental stimuli have already been tested empirically, two phases of studies and subsequently conceptual models are presented to examine the aforementioned paradigm in the airport context. The studies are conducted mainly to 1) observe airports' environmental effects on travellers' emotions; 2) identify the influence of the environment on travellers' satisfaction and image; and 3) test the moderating role of sense of place and sense of place in the relationship between the airport environment and satisfaction or/and image accordingly. As such, this study proposes that elements of the airport environment are the stimuli (S) and that the way they are evaluated in terms of emotions (O), can, in turn, influence the formation of the airport image and travellers' satisfaction evaluations (R).

3.2.2 SOR's Criticism

Numerous Consumer Behaviour (CB) model theories have received critique upon their applicability to various cases, so as the Stimulus – Organism – Response model. Initially, Mehrabian and Russel (1974) introduced the M-R model to examine the atmosphere of a context, however, its lack of attributes limited its application and forced Donovan and Rossiter (1982) to the extension of the model with adding more stimuli and characteristics. Since then, research has applied this model on different contexts with some modifications in order to be adapted on various scopes (eg. Goi et al., 2014; Pantano et al., 2017; Peng & Kim, 2014). Although the model is widely accepted to fit and explain different circumstances, critique has been applied to it, supporting that its linear influence does not reflect reality (Jacoby, 2002). According to the same author, everyday phenomena tend to be "nonlinear …but psychological, fluid, dynamic" (Jacoby, 2002, p. 52). Additionally, examining the stimuli's direct influence on internal responses and behavioural outcomes leads to ignorance of other important exogenous factors such as culture, social class and reference groups. As a result, such omissions lead to misunderstanding of the situation (Jacoby, 2002).

Furthermore, CB engages complex relationships, fields and explanations and there are cases where it is "difficult to determine whether certain constructs belong to the

stimulus realm, the response realm, or the realm of the organism" (Jacoby, 2002, p. 52). Such constructs can be the attitudes, satisfaction or intentions. Thus, the number of constructs, boxes and arrows is not limited to three but to many more. This evidence is also related to the non-implementation of a sequential relationship between the constructs but to overlapping circles (Jacoby, 2002). Another disadvantage of the model is that the PAD typology is "too narrow" (Eroglu et al., 2001, p. 181). According to the authors' conclusions, the internal responses' typology needs to be expanded and encompass more internal reactions relevant to the research topic. The PAD scale is suitable when investigating environmental stimuli rather than factors such as "shopping and consumption" (Richins, 1997, p. 128).

Despite the criticism that the model has received, with some interventions and modifications along with the typology of Turley and Milliman (2000), it remains as the most prominent and suitable paradigm to explain the scope of the present thesis. The restrictions and disadvantages aforementioned were a challenge for the model's expansion, which does not follow a sequential relationship neither a narrow typology of internal responses.

3.2.3 Service-Dominant Logic

The Service-Dominant (S-D) logic, first presented by Vargo and Lusch (2004), moves marketing's emphasis from goods-centered creating value to service-centered value creation. It makes the case that interactions between suppliers and customers co-create value and that services, not products, are the essential building block of exchange. This theory suggests that all individuals participate in this co-creation process and highlights the significance of resources like knowledge and skills in generating value. Notwithstanding its broad appeal, S-D logic has been criticised for being unduly abstract, ignoring the material components of services (such as tangible commodities), and providing no direction for real-world application (Grönroos & Gummerus, 2014). Improvements have been made to incorporate more specialised models in response, including the "service ecosystems" framework, which incorporates the involvement of many players and environmental elements and the larger context of value co-creation (Vargo & Lusch, 2017).

Since interactions with airport staff are important touchpoints for influencing traveller emotions and evaluations, the present paradigm can be extended to airports. According to the Stimulus-Organism-Response (S-O-R) model, which has its roots in environmental psychology, employees are part of the "stimulus" that affects travellers' emotional and cognitive "organism" states, which in turn influence their "responses" in terms of satisfaction and airport image (Mehrabian & Russell, 1974).

S-D logic enhances the S-O-R model's emphasis on comprehending how human and environmental inputs affect psychological and behavioural results by presenting airport employees as co-creators of value. By providing culturally competent and individualised service, employees can increase positive emotional responses, which will increase the overall efficacy of the airport environment.

3.3 Conceptualisation of constructs and research hypotheses

3.3.1 Study 1

3.3.1.1 Stimulus, Organism, Response

Response (R) is explained as the final action since the exposure to stimuli and the intervening emotional states (Donovan & Rossiter, 1982; Manthiou et al., 2016) where according to research, there is a positive influence between the internal responses (O) towards the behavioural outcome (R) (Sherman et al., 1997). Otherwise, in relative research is stated as the behaviour in two opposite ways (Manthiou et al., 2016) the approach and/or avoidance (Roux et al., 2020). The approach behaviour indicates the individuals' favorable behaviour and is being investigated through different measures such as revisit (Yerimou, Panigyrakis, et al., 2022b), WOM (Hatzithomas et al., 2018), purchases, spending more time in a store (Donovan et al., 1994), a positive evaluation towards a store (Sherman et al., 1997) or the frequency of visits (Roux et al., 2020). On the other hand, the avoidance behaviour is communicated through "actions opposite to those in approach behaviour" (Manthiou et al., 2016, p. 5). Image and Satisfaction are used to describe the approach/avoidance reactance in the current thesis.

3.3.1.1.1 Airport Environment and Image

Stemming primarily from business research, a favorable corporate image of branded restaurant chains, for example, is driven by environmental stimuli like design, decoration and cleanliness (Erkmen & Hancer, 2019). Literature theorizes that an environment improves a place's overall image (Milliman & Fugate, 1993) yet applications of the latter are relatively limited within airport servicescapes. Mainardes et al. (2021) through their work answered a similar question on how service quality affects airport image. They focused on constructs like service reliability, convenience, and employees, but such predictors differ from those of a physical environment that captures, for example, elements of ambiance.

From the aforementioned, the measurement of airport environment perceptions is hypothesised to be constituted by three dimensions: signs, ambiance and cleanliness. Concerning image, the flow of effects of previous research that measured satisfaction is adopted, and it is hypothesised that ambiance, signs, and cleanliness individually favourably impact the airports' image (S_1H_1-S_1H_3). Their combined effects are further examined when the three dimensions constitute the airport environment construct (S_1H_4). As noted, the phrase environment refers to the setting where a service operation takes place, encompassing both the physical and ambient elements (see Figure 2). Formally:

S_1[5]H_1: Ambiance has a positive effect on airport image

S_1H_2: Signs have a positive effect on airport image

S_1H_3: Cleanliness has a positive effect on airport image

S_1H_4: Airport environment has a positive effect on airport image

[5] S_1 stands for Study 1.

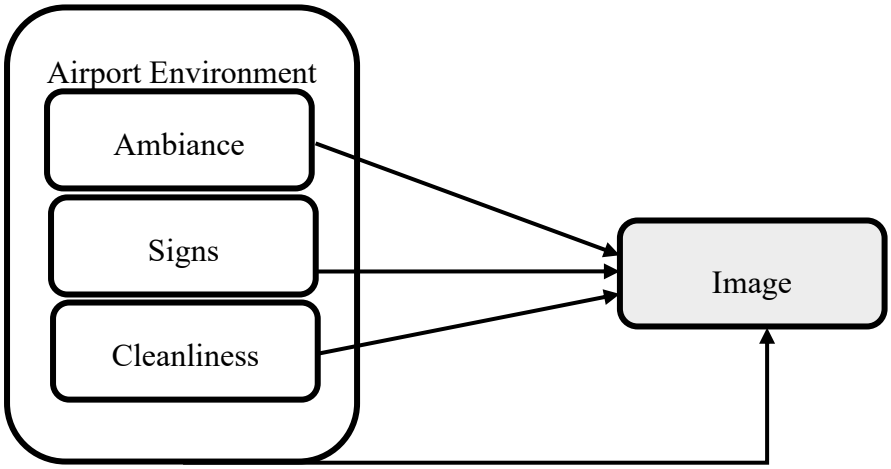

Figure 2. Airport environment effect on airport image

3.3.1.2 Moderating Effects

Identifying moderators is crucial for determining circumstances under which certain effects occur (or don't). A moderating investigation expands previous mediating examinations (Wattanachareonsil et al., 2021), by providing linkages between constructs that enhance the precision and efficacy of respective interventions (Hayes, 2022). Specifically, evaluating moderating influences allows the identification of parameters that enhance favourable satisfaction evaluations.

3.3.1.2.1 Sense of place

Consistent examinations in tourism research promote the importance of authenticity for tourist experiences (Gardiner et al., 2022; Rickly & McCabe, 2017) linking the latter with tourist loyalty and destination revisit (Kolar & Zabkar, 2010). For example, literary and dark tourism have authenticity embedded in the motivation and purpose of travel (Jiang & McCabe, 2023; Ingram et al., 2021). Researchers have correlated the term of sense of place with authenticity in heritage sites and hotels (Ariffin et al., 2015) yet it is important to reflect on previous attempts made to define what the term encapsulates.

Stedman (2003) indicated that sense of place has in its basis the symbolic meanings portrayed through the setting. The common attribute that the literature gives to the term are meanings given to a place which arise from lived experiences (Campelo et al.,

2014). In essence, sense of place embeds authenticity in servicescapes and promotes unique country characteristics that differentiate an environment from that of another country. Symbols, images, and artworks convey sense of place stimuli through cultural artefacts, historical artworks and nature representations among others (Rowley & Slack, 1999). Importantly, a place needs to be recognizable and communicate an identity, in order to transfer a sense of place to travellers (Lynch, 1998). As such, sense of place can be the medium towards an experience, with the atmosphere of a place being the instrument through which the spirit of the visited country is communicated. In airport servicescapes specifically, Ali et al. (2016) identified the moderating effects of sense of place in the environment-satisfaction relationship of Malaysian airports. Further examinations found interior design, sculptures and general cultural artefacts to be a reflective form of object-authenticity (N. Wang, 1999), a finding that Volgger (2020) complements with architecture designs.

Research shows that sense of place moderates the relationship between a physical environment and airport satisfaction and delight (Ali et al., 2016; Ariffin & Yahaya, 2013) a flow of effects based on which we position H5. A moderating investigation expands previous mediating examinations (Wattanachareonsil et al., 2021), by providing linkages between constructs that enhance the precision and efficacy of respective interventions (Hayes, 2022). Evaluating moderating influences allows the identification of parameters that enhance positive airport image perceptions and we thus hypothesise that the relationship between physical servicescape and airport image is moderated by sense of place (Figure 3). Formally:

S_1H_5: Sense of place has a moderating effect on the relationship between airport environment and airport image

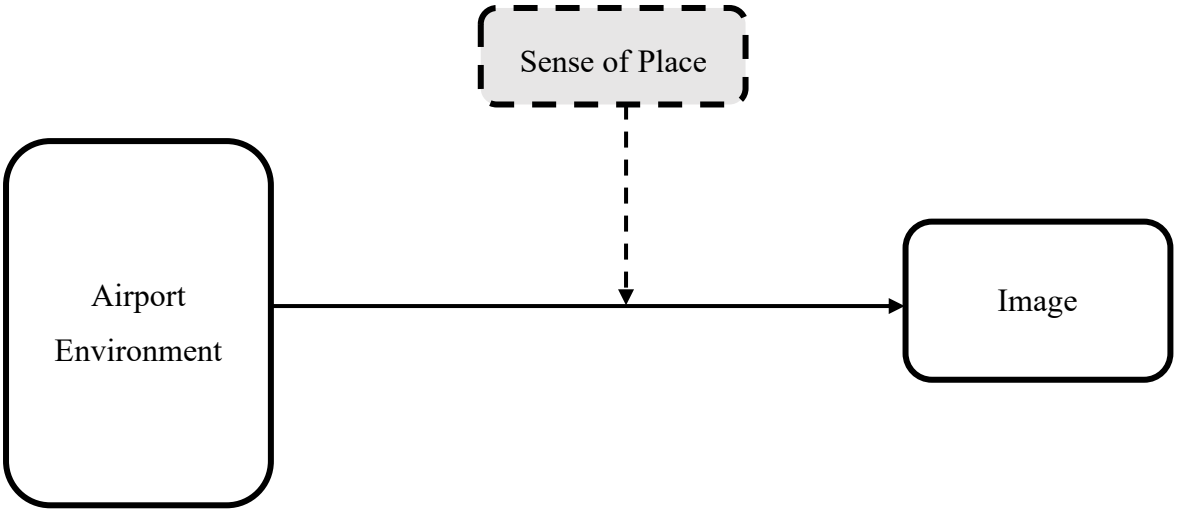

Figure 3 Sense of place moderating effect on airport image

3.3.1.5 Conceptual Model of Study 1

Following the discussion in the previous sub-chapters, the present thesis suggested and evaluated the following conceptual model for Study Conceptual Model of Study 1 (Figure 4):

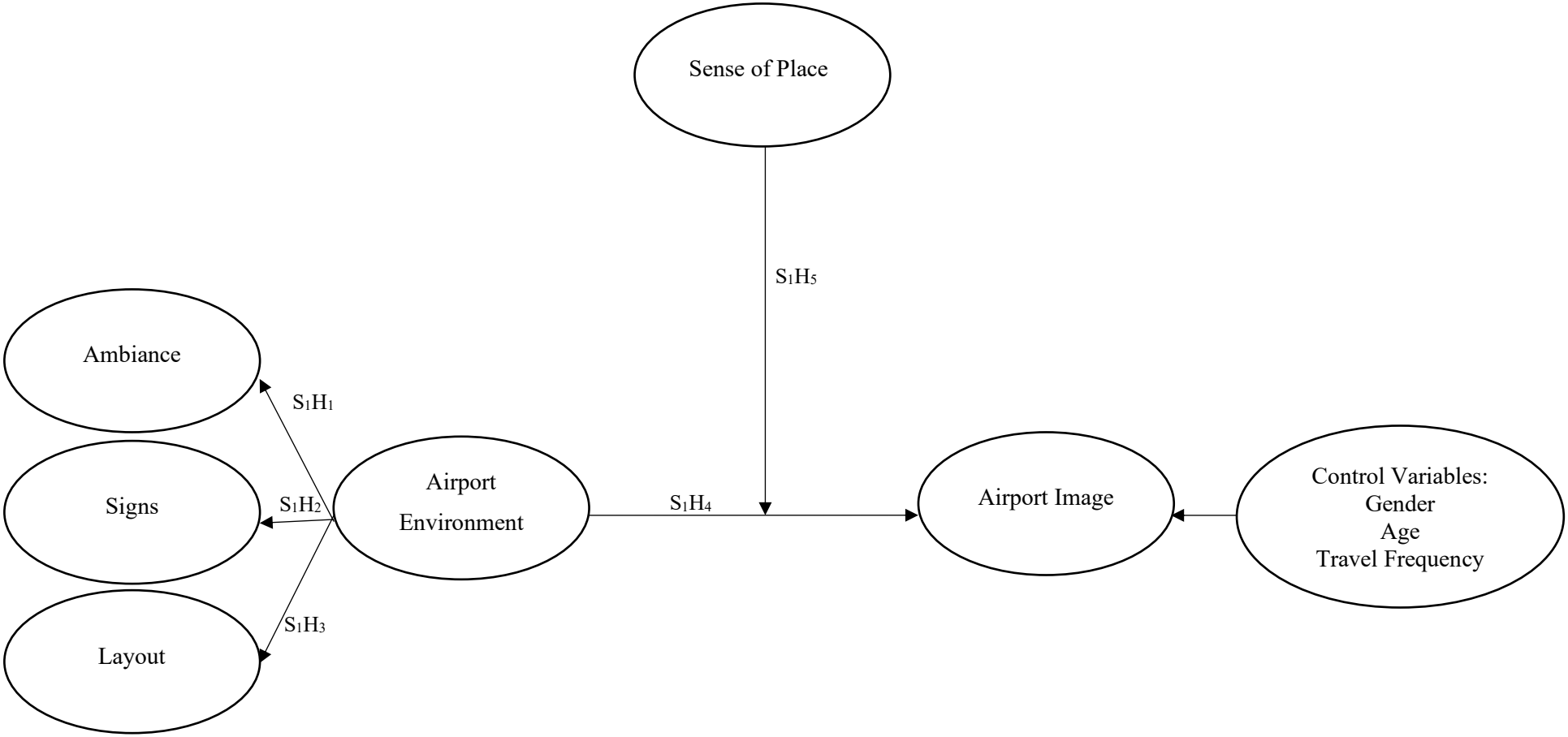

Figure 4 Conceptual model of Study 1 with RH

3.3.2 Study 2

3.3.2.1 Stimulus

The term stimuli (S) can be defined "as those external factors associated with a pending decision" (Sherman et al., 1997, p. 365). In the SOR model, the stimuli are all the environmental attributes which aim to affect the individuals' emotional states (Turley & Milliman, 2000), the "impetus" within an environment (Roux et al., 2020, p. 1102). Thus, based on the SOR theory, the stimuli (i.e. atmospherics or environmental stimuli) "include the physical and non-physical elements" (Roux et al., 2020, p. 1102) within an environment that aim to influence individuals' behaviour (Berman & Evans, 1995).

In services contexts, atmospherics and environmental stimuli act as the stimuli (S) in the model which elicit individuals' responses (R) (Barry & William, 1995; I. Y. Lin & Mattila, 2010; Peng & Kim, 2014; Choi & Kandampully, 2018; Vilnai-Yavetz et al., 2021). As discussed in the analysis of the typology of environmental stimuli in the chapter 2.2.1 of literature review, atmospherics can be defined as the "effort to design buying environments… that enhance the purchase probability" (Philliph Kotler, 1973, p. 50).

While investigating the stimuli in the environments, previous research mostly focused on three dimensions of environmental stimuli: design, layout and ambience (Mathieu. Many scholars argued that examining environmental stimuli from a holistic perspective is essential to understand its effects, an issue that has been stated since the 2000s (Mattila & Wirtz, 2001; Roux et al., 2020). Based on the Gestalt's theory approach, at its core, investigating something as a whole differs from investigating different parts individually (Schiffman, 2001). As Ingrid Lin stated in her work (2004, p. 165), individuals through their sensations perceive various stimuli in a servicescape which "organize them cognitively into groups, and form images from the stimuli as a whole". As such, breaking down the stimuli and examining them independently is a loss of sight (Schiffman, 2001). An important but less examined concept, the Gestalt approach is particularly relevant in the airport context as visitors tend to interact with various atmospheric stimuli. Numerous studies used to examine "various environmental elements taken one at a time which led to the term of holistic atmospherics " (Baker et

al., 2002, p. 120). In other words, these multi-sensory cues have as core the fact that as consumers enter a servicescape, the interplay of all the environmental stimuli come into their perception as a whole (Ballantine et al., 2010). These multi-sensory stimuli can be alternatively defined as "those that complement vision … such as the addition of scent … or music" (Helmefalk & Hultén, 2017, p. 1). Furthermore, individuals do not concentrate on wall colours or odours in isolation, as all the atmospheric cues of music, decoration, temperature and other stimuli form "an on-going, integrated experience" (Ballantine et al., 2015, p. 504). It is of fundamental importance to understand and achieve congruency among the cues to achieve positive behaviours and evaluations (Helmefalk, 2019; Spence et al., 2014).

3.3.2.2 Organism

In the SOR paradigm, organism (O) is defined as the "internal processes and structures intervening between stimuli external to the person and the final actions" (Sherman et al., 1997, p. 365). In other words, the individuals' emotional responses are mediating the influence among the environmental stimuli and final behaviour. Three are the prominent inner states, commonly known as PAD responses; pleasure-displeasure, arousal-non arousal, and dominance-submissiveness (Bitner, 1992a). These states are derived from emotional and cognitive perspectives (Manthiou et al., 2016). Precisely, pleasure refers to consumers' subjective feelings towards an environment (Mehrabian & Russell, 1974). These emotional responses engage individuals' moods and attitudes towards the environment (Manthiou et al., 2016). Whether an individual is satisfied or dissatisfied towards an environment or atmosphere, his/her emotions demonstrate this; pleasure or unpleasure (Ali et al., 2015; Y. J. Wang et al., 2011). In addition, arousal indicates the level of stimulation the individual raises towards an environment (Mehrabian & Russell, 1974). In other words, this is translated into the cognitive responses, "everything that goes in the consumers' minds" such as the beliefs, knowledge and attitudes that the target audience (i.e., visitors) has (Eroglu et al., 2001, p. 181). Dominance is whether the individual feels or not in control in the environment (Mehrabian & Russell, 1974). Relative research has conceptualized this category as the physiological responses which comprise characteristics such as pain and comfort (Bitner, 1992a; Manthiou et al., 2016).

Out of the three types of responses, pleasure has been found to be an important predictor for consumers' behaviour, whilst dominance as the least important dimension, which has been removed from various studies (e.g. Donovan et al., 1994; Sherman et al., 1997). The emotional dimension of dominance has attracted considerably less investigation than pleasure and arousal. The last two are often considered the most significant emotional responses in the examination of consumer experiences, especially in airport and travel contexts. As such, it is supported that environmental stimuli positively influence consumers' internal responses; pleasure and arousal (Sherman et al., 1997). These two types of responses "can adequately represent the range of emotions" since the exposure to environmental stimuli (Eroglu et al., 2001, p. 181). Conversely, dominance, associated with perceptions of control or authority over a situation, has demonstrated less relevance or understanding in these circumstances, frequently resulting in its exclusion from researchers' assessments.

An emotional enjoyment can be gained "through a rich physical environment" (Manthiou et al., 2016). The mediator in the SOR Model can be modified from emotional evaluations to environmental psychology terms and measures (Vilnai-Yavetz et al., 2021). Thus, organism can refer either to feelings, experiences, impressions, images and so on (Jacoby, 2002; Venter de Villiers et al., 2018). In the current study, impressions and experience evaluations are used to describe the internal processes influenced by the external environment (i.e., airport environmental stimuli).

3.3.2.2.1 Airport Environment and Emotions

The mediator in the S-O-R Model can be modified from emotional evaluations to environmental psychology terms and measures, thus, organism can also refer to the emotions (Vilnai-Yavetz et al., 2021).

Within the airport setting, emotions tend not to receive sufficient attention. More precisely, the study conducted by Ali et al. (2016) sought to investigate the impact of the physical environment of airports on emotions and, as a result, on the pleasure of passengers. The study investigated the impact on the particular emotion of delight, which falls within the category of stimulating (i.e., arousing) emotions. The results indicated that the atmosphere played a major role in generating delight, and as a result, it also significantly influenced the levels of satisfaction among passengers. Increased

positive assessments of the airport environment directly correlate with higher levels of passenger satisfaction. One example of consistent research is the study conducted by Ariffin and Yahaya (2013). The researchers investigated the elicited sense of pleasure resulting from an airport image created from environmental inputs. In a similar manner, in their research, Moon et al. (2016) investigated how several aspects of the airport environment, such as its layout, aesthetics, and cleanliness, affect the pleasant and arousing emotions of visitors. Various stimuli had an impact on either pleasure, arousal, or both.

The objective of Ryu and Park (2019) was to investigate the impact of an airport's experience on travellers' pleasure, satisfaction, and image. In contrast to earlier studies, the researchers focused on studying the emotion of pleasure instead of arousal. Although the components of aesthetic experience were not dependent on physical or human-related stimuli, they did involve environmental parameters such as design. The findings revealed that the aesthetic experience of the airport had a statistically significant impact on the positive feelings experienced by travellers. Thus far, it has been clear that certain researchers have concentrated on the arousal aspect of emotion, while others have concentrated on the pleasant aspect. Park and Park (2018) investigated emotions inside the airport setting comprehensively. Their objective was to investigate the impact of airport characteristics on travellers' perception of the servicescape, emotional reaction, customer satisfaction, airport image, and behavioural intentions. Unlike earlier researchers (Ali et. al., 2016; Ariffin & Yahaya 2013), the aforementioned researchers did not depend on a particular feeling when measuring emotional reactions. More precisely, the researchers analysed emotions as a more complex concept consisted of happiness, pleasure, annoyance, boredom, and stifling. The findings of their study emphasised the crucial role of the perceived servicescape in influencing emotions, highlighting the substantial and meaningful impact. Furthermore, it was determined that emotions significantly influenced the levels of pleasure among travellers. In sum, consistent with the above brief literature the following hypotheses are formed (see Figure 5):

S_2H_1[6]: Airport environment (ambiance, layout, employees, safety) has a significant and positive effect on pleasure

S_2H_2: Airport environment (ambiance, layout, employees, safety) has a significant and positive effect on arousal

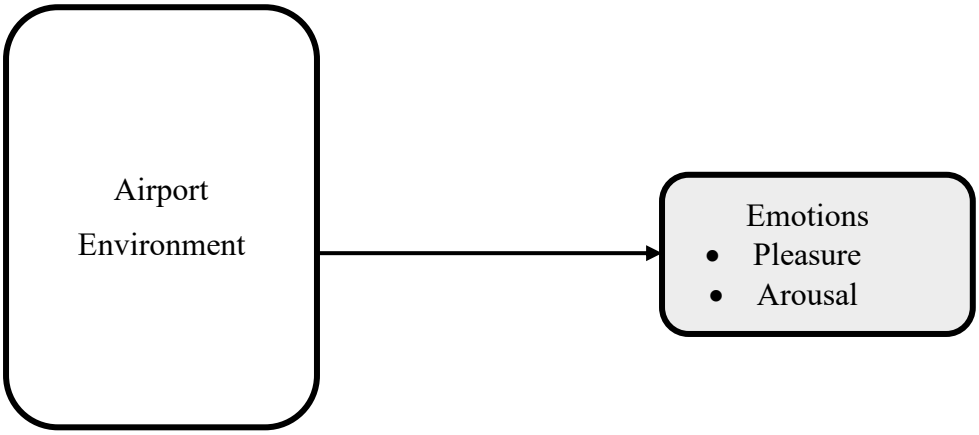

Figure 5 Airport environment effect on emotions

3.3.2.3 Response

3.3.2.3.1 Emotions and Satisfaction

Regarding pleasure and arousal, research has shown that environments determine them and shape individuals' assessments and behavioural intentions (Yerimou & Themistocleous, 2024b). Importantly, pleasure and arousal have been identified as crucial factors contributing to satisfaction in the literature on travel and tourism. In their analysis, Ali et al. (2016) investigated the impact of the airport environment as a higher-level concept on passengers' satisfaction and found that the environment had a considerable direct influence on travellers' emotions. Yet, research on the emotional experiences of travellers in airport settings generally lacks specificity and requires further investigation. Indeed, several studies prioritise examining specific emotions,

[6] S_2 stands for Study 2.

such as delight, while neglecting others (Ariffin & Yahaya, 2013). Therefore, the following hypothesis are formed (see Figure 6).

S_2H_3: Pleasure has a significant and positive effect on satisfaction

S_2H_4: Arousal has a significant and positive effect on satisfaction

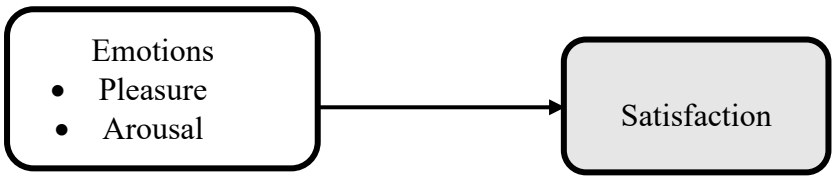

Figure 6 Emotions influence on satisfaction

3.3.2.3.2 Airport Environment and Satisfaction

In the travel and tourism literature, Moon et al. (2017) underlined the significant impact of layout accessibility and facility aesthetics on the satisfaction of travellers. In a similar vein, the study conducted by M.-H. Kim et al. (2016) highlighted the direct and significant impact of facilities and accessibility factors on satisfaction. Likewise, Batouei et al. (2020) conducted a study to examine many aspects, including the airport servicescape and its components such as lighting, seating, and design, and their significant impact on travellers' satisfaction. Due to the acknowledged significance concerning satisfaction, academics have directed their attention to holistically examining the overall airport environment. Specifically, researchers currently tend to analyse the impacts of the airport environment as a higher-order construct (Ali et al., 2016; Mainardes et al., 2021). The impact of different stimuli, such as arrangement, staff, and safety, has become evident due to their considerable consequences. Consequently, the airport environment has gained a new significance in terms of being thoroughly examined, with a focus on previously unexplored topics such as the human-related aspects relating to personnel and their behaviour. According to Yerimou and

Themistocleous (2023), earlier measures have shown that satisfaction is a dependable predictor of future behavioural intentions. Within the airport industry, airports with higher satisfaction levels are more competitive. This competitiveness allows them to attract a greater number of airlines and passengers, resulting in higher revenues (Halpern & Graham, 2013). Moreover, increased levels of satisfaction foster travellers' loyalty, which in turn leads to repeated patronage and favourable word-of-mouth recommendations (Bezerra & Gomes, 2016). Given the extant discussion it is plausible to posit the following (Figure 7);

S_2H_5: There is a positive and significant influence of airport environment (ambiance, layout, employees, safety) on travellers' satisfaction.

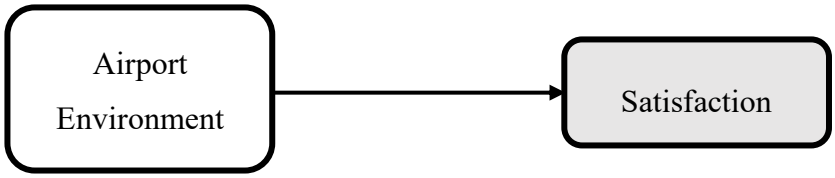

Figure 7 Airport environment effect on satisfaction

3.3.2.4 Moderating Effects

3.3.2.4.1 Sense of place

On multiple occasions, airports are often portrayed as buildings recognisable as white boxes, featuring curved ceilings and walls painted in white. Researchers, however, were motivated to examine specific characteristics at airports that contribute to the development of an identity. National identity is defined as a reflection of a nation's distinctive qualities and cultural heritage, commonly referred to as a "sense of place" (Rowley & Slack, 1999). Locations can possess a distinct character derived from a nation's historical and cultural heritage, which can be effectively communicated via symbols, images, and artistic creations. According to Stedman (2003), the concept of sense of place is rooted in the symbolic representations provided by the environment. The literature commonly attributes the term to meanings that emerge from lived

experiences in a particular region (Campelo et al., 2014; Kudryavtsev et al., 2012). Essentially, the concept of sense of place incorporates authenticity into the design of service environments and highlights the distinctive traits of a country that set it apart from others. Symbols, pictures, and artworks communicate the stimuli of a certain location through sculptures, cultural artefacts, historical artworks, and representations of nature, among other things (Rowley & Slack, 1999). In addition, it is essential for a location to be easily identifiable and have a distinct character in order to effectively convey a feeling of place to travellers (Lynch, 1998). The sense of place serves as a means to facilitate an experience, with the environment acting as a medium through which the spirit of the visited country is communicated.

Currently, there is a consensus that it is necessary to consider and include local values, symbols, and culture. Various features such as sculptures, costumes, ceremonies, historical artworks, and nature representations, all help to create a strong sense of place. Creating airport environments based on the local culture might improve travellers' genuine experience, as Ali et al. (2016) suggested. Systematic examinations in the field of tourism research emphasise the significance of authenticity in shaping travellers' experiences. This connection between authenticity and tourist loyalty, as well as revisiting destinations, has been established by various studies (Gardiner et al., 2022; Rickly & McCabe, 2017). For instance, literary and dark tourism are characterised by a strong emphasis on authenticity, which is deeply rooted in the motivation and purpose of travel (Jiang & McCabe, 2023). Researchers have linked the word "sense of place" to authenticity in heritage sites and hotels (Ariffin et al., 2015). However, it is crucial to consider prior efforts made to establish the exact meaning of this term. Using symbols that effectively convey a sense of place at airports emerges as a significant catalyst for enhancing individuals' experiences, fostering heightened excitement and engagement.

However, studies have shown that individuals generally do not realise whether an airport environment accurately represents their national identity, and even if it does, it does not impact their overall experience (Van Oel & Van den Berkhof, 2013). Based on previous arguments, research indicates that including cultural representation in an environment significantly enhances experiences. However, contradicting findings show limited positive effects, and further research is recommended. Studies indicate that the perception of a certain location influences the connection between the physical

surroundings and numerous components of the service environment, such as satisfaction and delight experienced at airports (Ali et al., 2016; Ariffin & Yahaya, 2013 respectively). Based on the existing literature, the following hypothesis is formulated (Figure 8):

S_2H_6: Sense of place moderates the relationship between airport environment and travellers' satisfaction

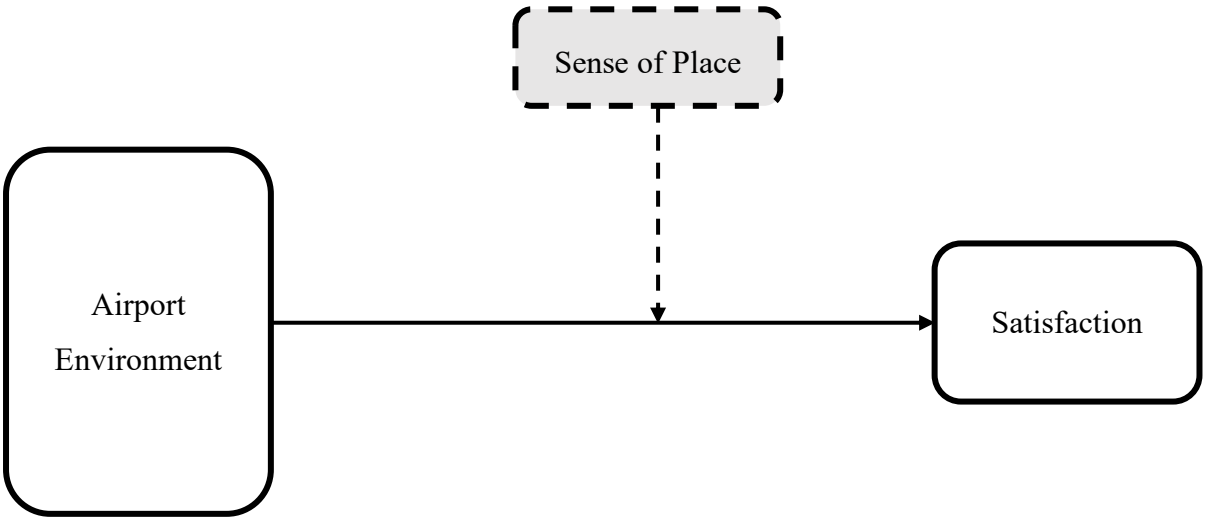

Figure 8 Sense of place moderating effect on satisfaction

3.3.2.4.2 Environmental Responsiveness

Given the complex composition of airport environment, various researchers have examined the airport environment from various perspectives. Some studies focused on environmental factors, while others concentrated on travellers' satisfaction. Additionally, some studies explored the correlation between intentions and actual behaviour. However, the extent to which travellers are environmentally conscious has not been investigated in the subject area. Environmental responsiveness refers to how individuals react to and are positively affected by environmental stimuli (McKechnie, 1974). A previous study by Eroglu et al. (2003) discovered that the relationship between

an environment and favourable feelings is regulated by atmospheric responsiveness. While the significance of this relevance was highlighted, it is worth noting that just one study has investigated its impact, as far as the authors are aware. Therefore, given its significance in several areas like retail, studying how travellers respond to the environment can provide a deeper knowledge of the factors that contribute to travellers' satisfaction. Given the information provided, it is reasonable to propose the following (Figure 9);

S_2H_7: Environmental responsiveness moderates the relationship between airport environment and travellers' satisfaction

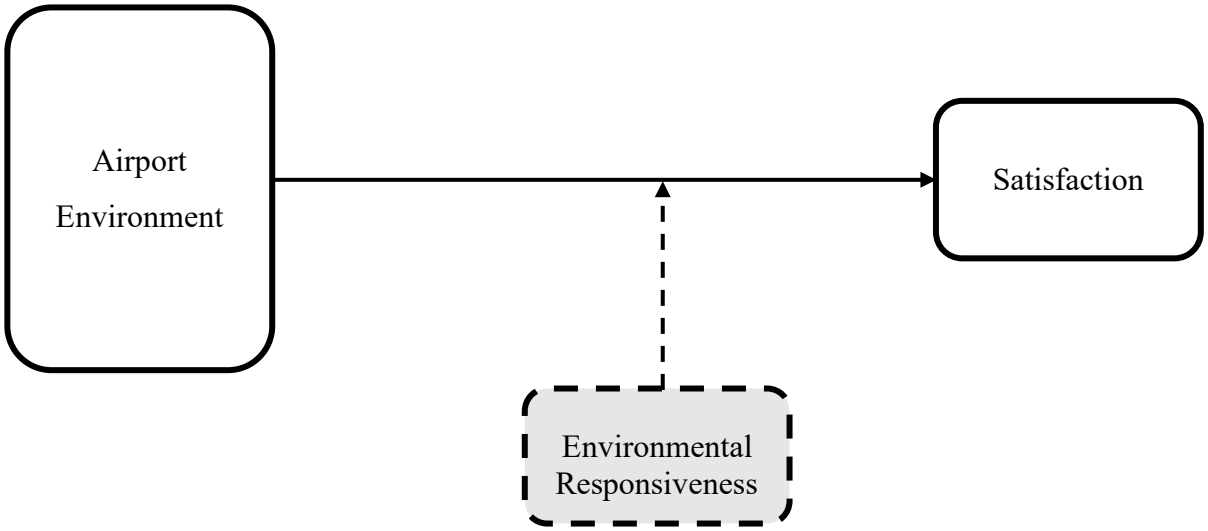

Figure 9 Environmental responsiveness effect on satisfaction

3.3.2.5 Conceptual Model of Study 2

Following the discussion in the previous sub-chapters, the present thesis suggested and evaluated the following conceptual model for Study 2 (see Figure 10).

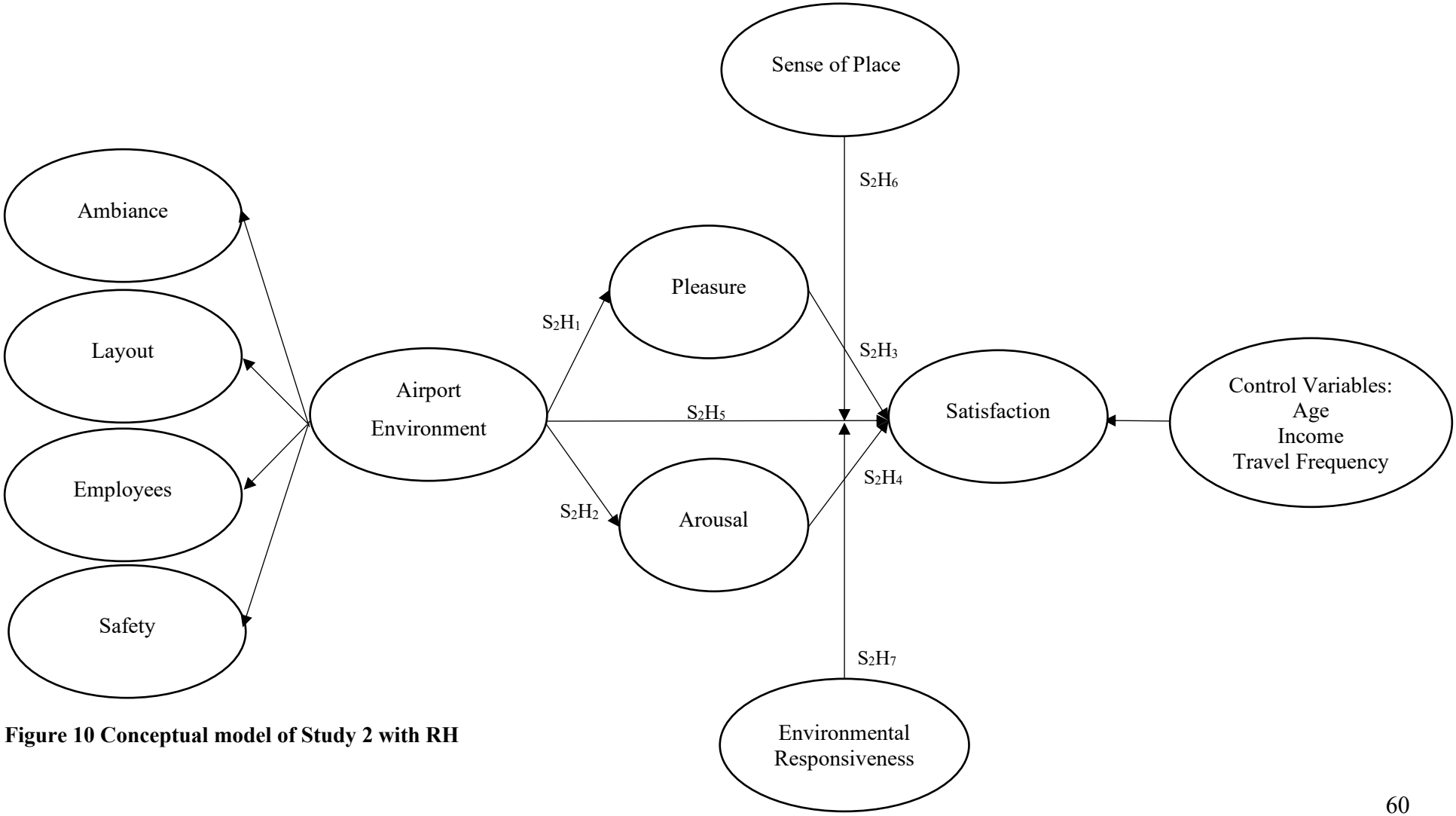

Figure 10 Conceptual model of Study 2 with RH

3.4 Chapter's Summary

In chapter 3, the theoretical background along with the conceptualisations of constructs and research hypotheses have been presented. The chapter started with an introduction to the theoretical backgrounds of the Classical Conditioning and Stimuli-Organism-Response model theories, explaining each construct as adapted to the purposes of the current thesis. A discussion of previous literature along with the relevant theory has been made to show the development of the research hypotheses under the six main constructs; airport environment, emotions, image, satisfaction, sense of place, and environmental responsiveness. All the hypotheses are tested through questionnaires as presented in the next chapters.

4 Research Methodology I

4.1 Introduction

The present chapter illustrates the methodology followed in the present thesis. In order to bridge the research gaps discussed in Chapter 1.1 and also examine the research hypotheses presented in Chapter 3.3, two main Studies (Study 1, Study2) were conducted. In Study 1 a sequential mixed-method was utilised in Study 2, and a concurrent mixed-method was conducted. In this vein, the chapter on methodology starts by delving into the epistemology and philosophical ontologies, followed by in-depth description of the methodologies and methods followed. In Study 1, questionnaires were administered to international travellers and were followed by one focus group with airport executives. In Study 2, questionnaires and interviews with international travellers were conducted simultaneously. That is, both in Study 1 and 2, the research setting, data collection, data analysis and validity and reliability procedures are illustrated.

4.2 Epistemology

Epistemology can be categorised into two distinct components. The individual's subjective theory of knowledge and the theory of knowledge within a social context. The individual epistemology is based on the study of cognitive sciences, which explore the relationship between the human mind and brain (see Goldman, 1986). The field of social epistemology draws from a range of social sciences and humanities to gain understanding of social processes, learning, and culture. Epistemology is the branch of philosophy that deals with the nature of knowledge and how it is acquired, particularly in relation to theoretical perspectives and methodologies (Crotty, 1998). Epistemology refers to a framework or system that helps us comprehend and elucidate the process of acquiring knowledge and understanding. Four factors interact with and influence each other, as seen in Figure 11.

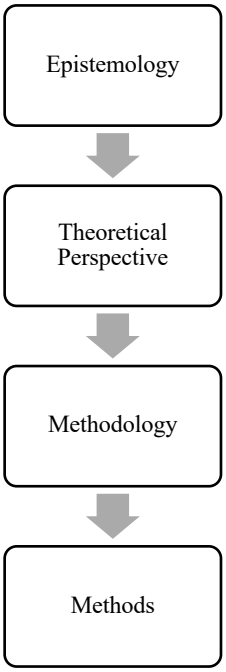

Figure 11 Main elements of epistemology (Crotty, 1998)

Epistemology focuses on the objective of scientific knowledge, which is to provide explanations based on naturalistic principles. Conversely, interpretation is concerned with the comprehension and interpretation of something. Within this expansive domain, the idea of ontology emerges as the focal point of investigation. Based on this, two overarching categories emerge: individuality and holism.

4.3 Theoretical Perspective

Theoretical perspective refers to the philosophical viewpoint that guides the approach, giving a framework for the process and establishing its logical basis and standards (Crotty, 1998). Epistemology pertains to matters of the intellect where a collection of statements, along with a collection of views or claims that are made with confidence. Epistemologists commonly advocate for conducting epistemology by considering degrees of belief or subjective probability (Goldman, 1986). Table 4 displays four distinct philosophical beliefs: post-positivism, constructivism, advocacy/participatory, and pragmatism (Creswell, 2009).

Postpositivism	Constructivism
• Determination	• Understanding
• Reductionism	• Multiple participant meanings
• Empirical observation and measurement	• Social and historical construction
• Theory verification	• Theory generation
Advocacy/Participatory	**Pragmatism**
• Political	• Consequences of actions
• Empowerment issue-oriented	• Problem-centered
• Collaborative	• Pluralistic
• Change-oriented	• Real-world practice

Table 4 Four worldviews of epistemology (Creswell, 2009, p. 6)

4.3.1 Post-Positivism

The postpositivist assumptions have traditionally been the dominant framework for research, particularly in quantitative research rather than qualitative research (Creswell, 2009). Positivism, at its core, saw valid philosophy as the logical framework of the sciences. Positivists emphasise the inter-subjectivity, or public nature, of scientific knowledge (Goldman, 1986). The positivist model is classified as an explanatory framework. Essentially, it presupposes that social reality is objective and can be objectively reported and analysed by the researcher in a neutral and evaluatively unbiased manner, similar to the approach used in scientific study. Logical Positivism refers to a philosophical movement that emerged in the German-speaking Europe during the 1920s and 1930s. Throughout this tendency, it undergoes enrichment, transformation, and liberalisation. The primary objectives of Logical Positivism were to conduct logical analysis of true information and provide an empirical basis for research.

Initial progress was made in challenging the inflexibility and dogmatism of positivist science. The trajectory followed by positivism in the history of ideas is revealed to be lengthy, convoluted, and intricate (Crotty, 1998). However, in the 1960s, the tranquilly of the field was disrupted, and logical positivism was widely seen as outdated. A response emerged against the stifling structure of Mathematical Logic and radical Empiricism. Positivism emphasises objectivity, empiricism, and the acquisition of knowledge through systematic observation. In contrast, post-positivism takes a more

nuanced approach, acknowledging the significance of subjectivity, interpretation, and the impact of social and cultural contexts in scientific pursuits (Kuhn, 1996). The phrase "post-positivism" refers to a school of thought that emerged following positivism, which questions the conventional belief in the ultimate reality of knowledge (Creswell, 2009). The knowledge that is acquired via a postpositivist perspective is derived from meticulous observation and measurement of the objective reality that exists outside in the world. Therefore, it is crucial for a post-positivist to create quantitative measurements of observation and analyse the conduct of individuals.

4.3.2 Constructivism

Constructivism, often known as social constructivism, is a worldview that is commonly regarded as an approach to qualitative research (Creswell, 2009). Social constructivists claim that individuals actively strive to comprehend the world in which they reside and engage in professional activities. Individuals form subjective interpretations of their experiences, which are focused on certain objects or entities (Creswell, 2009). Constructivism may be viewed as a reaction to concerns over how the mind might acquire knowledge about abstract objects that do not exist in space or time. If constructivism is correct in its assertion that facts are determined by the construction of proofs, then these truths should be accessible to human understanding (Golman, 1986). The constructivist perspective in mathematics rejects the notion of verification-transcendence. According to this viewpoint, a mathematical statement is considered true if and only if there exists a proof for it, and it is considered false if and only if there exists a proof for its negation. The rejection of the principle of bivalence easily ensues. Constructivism asserts that a mathematical assertion can only be considered true if we have a rebuttal for it. Social constructionism involves the examination of the existence of an objective reality. Human experience is shaped by historical, cultural, and linguistic factors.

Constructionism refutes this perspective on human knowledge. There is no absolute truth that is awaiting our discovery. The emergence of truth or meaning occurs via our active interaction with the facts present in our reality. The existence of meaning is contingent upon the presence of a cognitive faculty. Meaning is not found, but rather created. According to this perspective on knowledge, it is evident that individuals may

interpret and create significance in various ways, even while considering the same occurrence (Crotty, 1998). Constructivist scholars frequently investigate the mechanisms of interaction between individuals (Creswell, 2009). Vygotsky, although he did not explicitly use the term constructivism in his work, his fundamental concepts align with the principles of constructivism. The sociocultural theory of cognitive development is expounded upon in a book written by a consortium of Vygotsky researchers seeking to build on the psychologists' perspectives. He underscored the distinction between the accomplishments that an individual may get independently and what they can do with guidance or assistance. Alternatively, the Zone of Proximal Development (ZPD) which can be defined as “those functions that have not yet matured but are in the process of maturation” (Vygotski, 1978, p. 86). According to Vygotsky, learning takes place in a zone where individuals get help from more knowledgeable people. He stressed the significance of cultural and social elements on cognitive development. According to him, learning is a social phenomenon in which individuals acquire knowledge via interactions within their cultural environment (Vygotski, 1978). From a research standpoint, the primary objective of the researcher is to comprehend the interpretations and understandings that individuals have regarding the world (Creswell, 2009). Put simply, they have a tendency to create or construct a hypothesis about a pattern of significance.

4.3.3 Advocacy/Participatory

The origins of the advocacy/participatory philosophical approach may be traced back to the ideas put out by Paulo Freire. Freire stated that the poor suffer from ignorance and apathy, directly contributing to their economic, social, and political domination (Creswell, 2009; Freire, 1996).

This educator and philosopher specifically emphasised the crucial importance of critical pedagogy, which involves avoiding authoritarian teacher-pupil relationships. According to his explanation, when one scenario takes advantage of or obstructs another “such a situation in itself constitutes violence” (Freire, 1996, p. 37). Such an approach, emphasizes the importance of dialogue, critical thinking, and participatory methods. This approach highlights the significance of discourse, critical thinking, and participatory techniques. This method is seen in both qualitative and quantitative

research when research is closely connected to politics and a political agenda (Creswell, 2009). Essentially, this philosophical approach advocates for an action plan that has the potential to significantly impact the lives of participants or the organisation in which they are involved. Social themes, such as inequality, dominance, and empowerment, are often the research's central focus or first point. The active involvement of participants can result in their contribution to question design, information analysis, and overall representation of their perspectives. This philosophical viewpoint addresses the requirements of societal groups and people who may experience marginalisation or disenfranchisement (Creswell, 2009).

4.3.4 Pragmatism

Pragmatism is another viewpoint in the field of epistemology (Creswell, 2009). As a concept, pragmatism derives from acts, situations, and outcomes rather than preceding circumstances. Researchers prioritise the study problem over methodologies and employ all available approaches to comprehend the challenge (Creswell, 2009). Pragmatists such as Charles Sanders Peirce and John Dewey emphasised the collective nature of scientific investigation. As Kuhn highlights, paradigms refer to scientific societies that possess a shared understanding and actively communicate their knowledge (Goldman, 1986). John Dewey, a prominent pragmatist philosopher, argued that knowledge inherently depends on human interaction with the environment. In addition, he highlighted the importance of cognitive training, elucidating the concepts of inductive and deductive reasoning, as well as concrete and abstract thinking, among other topics (Dewey, 1997).

Dewey (1997) highlights knowledge's practical and experiential aspects while rejecting theoretical or detached ways of thinking. Dewey underscores the significance of engaged and contemplative cognition, asserting that thinking is a process of resolving problems rooted in one's encounters. He establishes a connection between the cognitive process and the resolution of real-world problems, asserting that ideas and theories acquire meaning and importance through their practical consequences. This approach is advocated as a conceptual foundation for mixed methods studies, emphasising the significance of directing attention towards the research subject in social science (Creswell, 2009).

4.3.5 Epistemology of current research

The present study adopts pragmatism as its philosophical foundation, encompassing the following assumptions:

- Pragmatism does not adhere to a certain philosophical system or view of reality. Mixed methods research involves drawing extensively on both quantitative and qualitative assumptions.
- Pragmatists perceive the world as lacking perfect unity. Similarly, mixed methods researchers seek to utilise many methods for data collection and analysis, rather than a single method.
- Truth may be defined as an effective or successful concept or idea within a certain period. It does not rely on the concept of duality between an external world and an internal reality. In mixed methods research, investigators utilise both quantitative and qualitative data in order to achieve a comprehensive grasp of a study topic.
- Pragmatists acknowledge that research is always within social, historical, political, and contextual frameworks. Mixed methods studies can incorporate a postmodern perspective, which is characterised by its reflection of social justice and political objectives.

4.4 Inductive and deductive theory

Deductive and inductive reasoning are essential methods in the realm of logic and research technique, each providing unique avenues for drawing conclusions and generating information. The offered incomplete and confusing data undergoes a dual transformation: first, towards a recommended comprehensive full scenario, and then from this suggested whole towards the individual facts (Dewey, 1997). Alternatively, the first kind of reasoning is referred to as *inductive*, while the second type is known as *deductive*. A comprehensive cognitive process encompasses both elements, which mutually engage in a productive relationship. In other words, it is said that the "movement goes towards the suggestion or hypothesis and the movement back to facts"

(Dewey, 1997, p. 81). The process of creating a concept is referred to as inductive discovery, or *induction* for short. Conversely, the process of developing, applying, and testing an idea is known as deductive proof, or *deduction* for short. By considering each of these processes in relation to one another, we achieve legitimate discovery or confirmed critical thinking.

Induction is transitioning from fragmented facts or specific instances to a coherent understanding of a situation. The inductive movement aims to uncover a unifying concept. The idea is notable for its possible inclusion of specific details that have not yet been encountered but are expected to be there if the suggestion is accurate. Kneale provides arguments for dismissing claims of certainty made by the experimental sciences. According to his argument, these sciences are based on induction (Toulmin, 2003). Contrary to deduction, this movement incorporates induction, where the researcher deduces the implications of their results for the hypothesis that initiated the entire process. The results are included in the existing body of knowledge and the study findings related to a specific area of investigation (Bryman, 2001).

Conversely, deduction starts with the latter and thereafter retraces its steps to specific details, establishing connections and unifying them. The deductive process aims to verify and evaluate its validity by confirming, denying, or altering it based on its ability to interpret individual elements into a cohesive experience (Dewey, 1997). This term, which is commonly used in practical arguments to refer to all processes that require justification, has been expanded by several logicians in order to encompass all five distinctions simultaneously. We may understand and use these distinctions, as long as we use quotation marks to indicate caution. The deductive theory is the most prevalent perspective on the nature of the connection between theory and social research. The researcher formulates a hypothesis based on existing knowledge and theoretical considerations in a specific field. This hypothesis is then tested via empirical investigation (Bryman, 2001). The process of deduction is as follows (Figure 12):

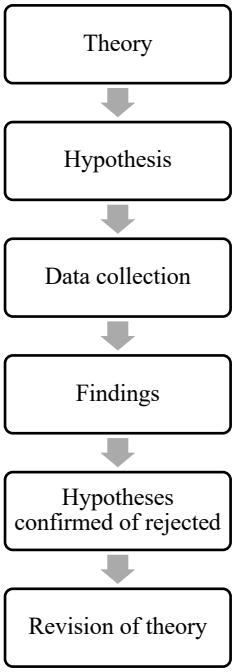

Figure 12 The process of deduction (Bryman, 2001, p. 9)

Mixed-methods research includes both inductive and deductive strategies, combining the advantages of qualitative and quantitative methodologies, minimising their disadvantages. The inductive phase, generally qualitative, examines information to identify insights or patterns, whereas the deductive phase, frequently quantitative, evaluates established theories or hypotheses.

This study employs both strategies, however, it predominantly adopts a deductive approach, emphasising the testing of established hypotheses. The research is specifically informed by the Stimulus-Organism-Response (SOR) model, which analyses the impact of external stimuli on internal processes and subsequent behavioural responses. Hence, the current thesis employs a deductive strategy, as theoretical viewpoints guide it, formulates hypotheses, collects data, and then confirms or rejects the previously developed hypotheses based on the findings.

4.5 Methodology

The methodology pertains to the strategic decisions we make on the manner in which phenomena will be assessed. Methodology refers to the underlying strategy, plan,

process, or design that guides the selection and utilisation of certain procedures, while also connecting these approaches to the intended objectives (Crotty, 1998). The purpose of methodology is to facilitate our comprehension, in the most comprehensive manner, not of the outcomes of scientific investigation, but rather of the actual procedure itself (Cohen et al., 2007).

4.5.1 Methods

Research methods encompass the techniques and procedures that researchers suggest for collecting, analysing, and interpreting data in their investigations (Creswell, 2009). These are the many methods or protocols employed to collect and evaluate data pertaining to a certain research issue or hypothesis (Crotty, 1998). In the sense of method, it refers to specific research techniques such as participatory observation, interviewing, filming, etc. The choice of methods turns on whether the intent is to specify the type of information to be collected in advance of the study or allow it to emerge from participants in the project. Methods in educational research refer to a variety of procedures used to collect data that will be used to make inferences, interpretations, explanations, and predictions (Cohen et al., 2007). Academic research encompasses three distinct types of study designs: *qualitative research, quantitative research,* and *mixed-methods research* (Bryman, 2012; Creswell, 2009; Fisher & Buglear, 2010).

4.5.1.1 Quantitative and qualitative research

In a quantitative method, the researcher evaluates a hypothesis by formulating precise hypotheses and gathering data to either support or disprove these ideas. The data are gathered using an instrument that evaluates attitudes, and the information is evaluated using statistical techniques and hypothesis testing (Creswell, 2009). Quantitative research primarily focuses on analysing connections between constructs and variables using numerical data and statistical analysis (Creswell, 2009). In contrast with qualitative research, it relies mainly on instruments developed by others. Unlike qualitative research, it mostly depends on produced instruments. Questionnaires are the predominant method for gathering data. The researcher can get a sample and collect

data in a significantly shorter period of time. The utilisation of questionnaires for data collection has several benefits, as illustrated in Table 5.

Conversely, in a qualitative method, the researcher aims to ascertain the significance of a phenomena based on the perspectives of the participants. This involves the identification of a group that has a common culture and the examination of how this group develops and maintains shared patterns of conduct over a period of time (Creswell, 2009). Qualitative research is a type of study that involves interpretation and depends heavily on "text and image data" (Creswell, 2009, p. 162). The primary focus of this study is to investigate and comprehend meanings, with the researcher serving as the primary instrument for data collection. There are several techniques for collecting data, with the primary one being interviews. Interviews offer a comprehensive perspective from participants since the interaction with the interviewers allows for a thorough comprehension of their emotions, and the researcher has control over the line of questions (Creswell, 2009). Interviews offer several significant benefits for data collection (see Table 5).

4.5.1.2 Critique on quantitative research

Although qualitative and quantitative research approaches are extensively used in academia and other fields, they are not immune to criticism. Therefore, it is important to thoroughly analyse and examine these objections.

At first glance, it appears that the use of surveys has several drawbacks. Some significant drawbacks are the following (Bryman & Bell, 2011):

- Quantitative research treats all respondents as equal, regardless of their actual equality
- There is lack of precision and accuracy: Respondents may interpret a question differently and provide answers based on their own understanding
- Participant-topic relationship: There is a potential issue where respondents may not take the topic seriously, or the topic being investigated may not be of importance to the researcher. That is, it raises the question of whether the researcher can depend on the participants' responses and draw inferences

- There is an insufficient provision of comprehensive information in response to the queries posed

4.5.1.3 Critique on qualitative research

However, qualitative research also has drawbacks. The presence and questioning of the interviewer may influence the participant's replies, and the location of the interview may also lead to the participant providing indirect information (Creswell, 2009). Some key disadvantages are the following:

- The interviewer's presence might potentially impact the veracity of answers
- The information and replies obtained are contingent upon the interviewees' thinking and perspectives
- The information is acquired inside a particular environment rather than a natural context, which can potentially alter the nature of the questions
- Certain respondents may exhibit less expressiveness compared to others

Table 5 below provides a summary of the advantages and disadvantages of quantitative and qualitative research.

	Advantages	Disadvantages
Questionnaires	• Questionnaires are a cost-effective alternative to interviews. They only need to be created once and may be sent to a broad audience, eliminating the need to hire interviewers or use audio cassettes and take notes • As the questions have already been transformed into constructs and variables, the researcher does not need to manually convert the data once it has been collected. They may proceed directly to the analysis stage • Researchers can get a substantial sample of the population more quickly compared to conducting interviews	• When it is not possible to directly see the respondents, conducting interviews is a valuable method for obtaining their ideas and replies. • It is a method for acquiring "historical information" (Creswell, 2009, p. 167) • Researchers have the ability to manage the course of conversation
Interviews	• Quantitative research treats all respondents as equal, regardless of their actual equality • There is lack of precision and accuracy: Respondents may interpret a question differently and provide answers based on their own understanding • Participant-topic relationship: There is a potential issue where respondents may not take the topic seriously, or the topic being investigated may not be of importance to the researcher. That is, it raises the question of whether the researcher can depend on the participants' responses and draw inferences • There is an insufficient provision of comprehensive information in response to the queries posed	• The interviewer's presence might potentially impact the veracity of answers • The information and replies obtained are contingent upon the interviewees' thinking and perspectives • The information is acquired inside a particular environment rather than a natural context, which can potentially alter the nature of the questions • Certain respondents may exhibit less expressiveness compared to others

Table 5 Advantages and disadvantages of Questionnaires and Interviews

4.6 Positioning the present research

The current thesis will employ a mixed-methods approach. There are three primary methodologies used in this sort of research: a) sequential mixed-methods, b) concurrent mixed-methods, and c) transformational mixed-methods all in an effort to "provide a comprehensive analysis of the research problem" (Creswell, 2009, p. 31). Mixed methods studies involve the integration of qualitative and quantitative methodologies (Creswell, 2009; Rudestam & Newton, 2015). In this case, both sequential (Study 1) and concurrent (Study 2) mixed methods will be conducted. The integration of both qualitative and quantitative data will mitigate the constraints of each utilised alone and will facilitate to:

- Conduct a thorough analysis of visitors' detailed assessments of their home airport and find the important aspects of the environment affecting airport image. Study 1 will be among the first attempts to illustrate the moderating influence of sense of place on the environment-image nexus.
- Understand through focus group discussions (Study 1), beyond shedding more light upon the influential effect of sense of place, additional insights regarding its practical applications and empirical measurements.
- Collect empirical data to determine the quantitative correlations between the environment, satisfaction, and the moderating effects of sense of place and environmental responsiveness (Study 2). Interviews with international travellers can extend beyond the examined relationships revealing themes that were unexplored.

The combination of quantitative and qualitative research in this work links broad statistical analysis to in-depth contextual understanding. Quantitative approaches discover and generalise key relationships and trends, such as environmental factors affecting traveller satisfaction and airport image, across large sample sizes. Qualitative study illuminates the causes and subjective perceptions of these patterns, such as how travellers perceive sense of place or environmental stimuli.

4.6.1 Sequential mixed-method

Sequential mixed-method procedures are ones in which the researcher aims to elaborate or build on the findings of one approach using another (Creswell, 2009). Sequential designs are divided into three types: a) sequential explanatory design, b) sequential exploratory design, and c) sequential transformative design. Study 1 in the present thesis follows a quan-qual methodology, resulting in a Sequential Exploratory Design.

The sequential exploratory strategy consists of a first phase of quantitative data gathering and analysis, followed by a second phase of qualitative data collecting and analysis that expands on the findings of the first phase. At its most basic, the goal of this method is to employ qualitative data and results to aid in the interpretation of quantitative findings. Such design is excellent for testing aspects of an emergent theory derived from the qualitative phase. The sequential exploratory technique has many of the same benefits as the sequential explanatory model (Creswell, 2009). Its two-phase design makes it simple to implement, describe, and report. It is useful for researchers who want to investigate a phenomenon. As with the sequential explanatory approach, the sequential exploratory model takes a significant amount of time to complete both data gathering phases, which can be a disadvantage in some research scenarios. In addition, the researcher must make critical decisions regarding which discoveries from the initial qualitative phase will be prioritised in the succeeding quantitative phase.

The main objective of this sequential mixed-methods study for Study 1, is to provide a comprehensive knowledge of the sense of place effect on travellers airports' evaluations. The data from quantitative data will inform upon the validity of certain constructs (eg. sense of place and airport image) which will be investigated more thoroughly in the qualitative phase of Study 1.

4.6.2 Concurrent mixed-method

The current thesis in Study 2 employed a concurrent mixed methods approach. Specifically, this concurrent mixed-method study aimed to provide insight into the environmental impacts of airports on passengers' overall assessments. The data from both studies were simultaneously obtained, distinguishing this strategy from the

sequential approach where one piece of data is collected before the other. Therefore, Study 2 involved conducting questionnaires administered to travellers, and interviews to thoroughly investigate the impact of airport surroundings on the travellers' evaluations.

The study aims to utilise the triangulation technique, which involves collecting and analysing data simultaneously, to integrate and compare the results in order to identify any significant discoveries. Put simply, the two types of data will be segregated yet linked.

4.7 Study 1a: Quantitative Research

4.7.1 Research Instrument

Instrumentation refers to the methods used in a study to evaluate variables and address research objectives and hypotheses (Rudestam & Newton, 2015). Questionnaires were employed in Study 1 to get assessments from passengers regarding the airport surroundings in their home countries. As a general statement, questionnaires provide numeric descriptions upon the visitors "attitudes and opinions" (Creswell, 2009, p. 137) with economy in design (Fisher & Buglear, 2010).

4.7.1.1 Pilot Study for the questionnaire design

Given that the research was conducted using a structured questionnaire, it was necessary to prototype and modify the questionnaire to ensure that the final version includes a comprehensive range of possible replies that may be fairly anticipated (Cohen et al., 2007). Furthermore, the precise phrasing of the questionnaire is of utmost significance, and conducting a pretest is essential for ensuring its effectiveness. To achieve optimal outcomes, a pilot study was undertaken with a sample of 20 individuals who frequently travel. The purpose of this study was to ensure that all questions were comprehensible and to identify any potential issues or challenges (Bryman & Bell, 2011). In addition, the purpose of piloting the questionnaire was also to:

- Review the instructions and layout,
- Resolve any ambiguities or difficulties in phrasing,
- Assess the readability levels, and obtaining feedback on leading questions.
- Assess the duration of the questionnaire and determining if it was excessively lengthy or insufficiently brief (Cohen et al., 2007, p. 341)

In the current thesis, the pilot study conducted aimed on questionnaire's modification to ensure its effectiveness. Through this process, certain questions could be slightly refrained to avoid confusion and resolve ambiguities, along with typos' corrections. This allowed the modification or removal of complicated questions. The pilot research could identify problems with the questionnaire's structure or flow, including repetitive

items and excessively lengthy sections. Furthermore, the pilot test could help on the average time of completion via Prolific in order to inform participants in a later stage. These specific amendments result in a more valid and reliable measurement tool for the primary study.

4.7.1.2 Questionnaire of the quantitative study

Researchers have the option to choose from a variety of questionnaire styles, ranging from highly organised to unstructured (Cohen et al., 2007). Study 1a was carried out using a standardised questionnaire for the current investigation. Highly organised, limited questions are valuable because they can produce response frequencies that can be easily analysed and treated statistically. They are also faster to code and analyse (Cohen et al., 2007). The four primary types of scales are: a) nominal, b) ordinal, c) interval, and d) ratio.

An online structured survey instrument was developed to further investigate the research questions. Prolific Academic was utilised to collect a field sample of foreign travellers who had travelled the previous month. All constructs were measured based on validated scales in the literature. The airports' environments items were adapted from Ali et al., (2016), Moon et al. (2017) and Bitner (1992a). This construct was divided into four sub-constructs: ambience, signs, functionality, and cleanliness (see Table 6). The measures for the sense of place variable mirrored those Ariffin & Yahaya (2013) used in their research. Given the adoption of this scale in marketing research, these measurement items likely are relevant to the current research. The scale developed by Park and Park (2018) was used to measure the overall airport image. All the scales were measured using the seven-point Likert scale. In the Likert questions which ranged from 1 to 7, 1 represented strongly disagree, 2 indicated disagree, 3 reflected somewhat disagree, 4 expressed the state of neither agree nor disagree, 5 represented somewhat agree, 6 reflected agree and 7 indicated strongly agree. These scales are highly beneficial tools for researchers since they incorporate a level of sensitivity and distinction in their response, while also producing numerical data (Cohen et al., 2007). This scale range is chosen for its tendency to yield greater reliability and internal consistency ratings (Preston & Colman, 2000; Themistocleous et al., 2019). The scale

developed by Park and Park (2018) was used to measure the overall airport image. All the scales were measured using the seven-point Likert scale. The total number of the items was 38.

The questionnaire adhered to a predetermined sequence of inquiries aimed at aiding passengers in recollecting their memories of the airport experience. At first, the participants were inquired about the airport name and place using an open-ended inquiry. It is recommended that first questions be straightforward in order to promote engagement and enhance the respondent's confidence (Cohen et al., 2007).

Next, participants were queried about the environment of the airport, and firstly upon its ambience with a total of seven items. These seven questions captured the stimuli of colour schemes, architecture, brightness, temperature, music, aromas an interior decoration. This was then followed by a series of more detailed inquiries pertaining to the airport's signs, consisting of eight items. In this construct, travellers were asked about signs towards parking services, signs towards terminals, layout, availability of retail and dining options, passenger crowding, signs and electronic displays, signs towards ATM services and availability of baggage. Subsequently, participants were asked about the functionality of the airport, with a total of four items. These four items engaged questions upon the electronic facilities, adequate power sockets, mobility services and comfortable seating. Lastly, participants were questioned regarding cleanliness, with a total of three items. These three items captured questions about the cleanliness of restrooms and bathrooms, the cleanliness of retail and dining areas, and the cleanliness of the walkways, exits and baggage areas.

Subsequently, during the intermediate portion of the questionnaire, participants were queried about their evaluations towards the airport image. This section consisted of a total of four items. These items captured their favourable image of the airport, the excellence of the airport’s atmosphere, the friendliness of the airport and the overall image satisfactory.

As a final part of the questionnaire, participants were asked to evaluate the presence or absence of a sense of place in the airport using five items. The precise parameter engaged questions related to the reflection of their national identity, the interior and interior of the airport, the employees’ uniform, and the general representation of the airport’s home country. In the final part, non-threatening factual inquiries were initiated,

namely those related to demographics and travel (such as gender, age, education, income, ethnicity, trip purpose, travel frequency, and duration of stay). The questionnaire was sequenced in a manner that followed a funnelling process, starting with generic questions and gradually becoming more specialised. This approach was adopted to improve the overall sequencing of the questionnaire, as suggested by Cohen et al. (2007).

The questionnaire was sent to three marketing academics for evaluation, during which various grammatical and structural modifications were implemented to improve the clarity of specific phrases and ensure its coherence and length. The input obtained was utilised to enhance the instrument in terms of its questions, forms, and scales (Creswell, 2009). The survey will consist of around 34 closed-ended questions.

Environmental Constructs	Items per construct	Indicative Source
Exterior	Architecture Navigation Layout	eg. Moon, et al., 2017; Bonn et al., 2007; Chen & Lin, 2018; Francioni et al., 2018; Yoon & Park, 2018; Bezerra & Gomes, 2019
Interior	Temperature Colours Lighting Odours Music	eg. Loureiro, 2019; Del Chiappa et al., 2019; Vukadin et al., 2018
Layout and Design	Navigation Signs Traffic Flow Flight and Other Displays Decoration Artworks General Interior	eg. Figueiredo & Castro, 2019; Del Chiappa et al., 2019; Chen and Lin, 2018; Vukadin et al., 2018
National Identity	General Interior	Ali et al., 2016; Campelo et al., 2014; Ariffin & Yahaya, 2013; Shamai, 1991

Table 6 Airport environment categorisation among literature

4.7.2 Sample design and data collection

4.7.2.1 Research Sample, Sampling, and Sample Size

A sample may be defined as a subset of the population that is chosen for the purpose of inquiry. A subset of the population is selected using either a probability or a non-probability methodology (Bryman, 2001).

As previously demonstrated in a prior subchapter, there are two primary approaches to sampling: a) random sampling, and b) probability sampling (Cohen et al., 2007). The sampling method used in this example may be classified as *non-probability*. Prolific Academic was utilised to collect a field sample of foreign travellers who had travelled the previous month, and since the respondents finished the survey, they were compensated through Prolific.

Many researchers regard a sample size of 30 to be the least need for doing statistical analysis on their data. However, this number is considered relatively tiny, and it is strongly recommended to utilise a substantially larger sample size (Cohen et al., 2007). Researchers must consider the number of variables they want to control and the specific statistical tests they want to conduct when determining the appropriate sample size for their research (Cohen et al., 2007). The primary objective of the study is to obtain responses from at least 150 respondents in order to minimise sampling error (Bryman, 2012). Determining the appropriate sample size is a complex task that relies on several factors, and there is no universally correct solution to this question (Bryman, 2001).

4.7.2.2 Sample size calculation

A sample size calculator (G*Power) was used at the 95% confidence level and 5% margin of error, using the European Commission's estimation of 373m air passengers for 2021 (Eurostat, 2024) as the population statistic. The generated minimum sample size was 385. We oversampled and contacted 686 people of which 152 were excluded for failing to respond to the control check or withdrawing. The requirement for them to fill out the questionnaire was that they had travelled during the previous month. As a result, the final sample (n) included 534 international travellers. The diminution in

sample size was mostly caused by data outliers that were identified. The survey had a duration of around 20 minutes.

It is noted that the sample size of previous similar research was also consulted (see Table 7). For SEM, it is recommended to have a sample size that is at least 10 times the number of parameters. Moreover, it is recommended to have a minimum sample size of 150 for conducting structural equation modelling (Bentler & Chou, 1987) where others suggest it should be 200 (Çelik & Yılmaz, 2013 as cited in Civelek, 2018).

Authors/ Year	Methodology (data collection process)	Sample
Lin and Chen, 2013	Survey at the airport	570
Van Oel & Van Den Berkhof, 2013	Survey at the airport	346
Moon et al., 2017	Online survey	251
Han et al., 2018	Survey at the airport	354
Bezerra & Gomes, 2019	Survey at the airport	335
Han et al., 2019	Online survey	310
Prentice & Kadan, 2019	Online survey	373
Taheri et al., 2020	Survey at the airport	591
Han et al., 2020	Survey at the airport	250
Study 1a	Online survey	534

Table 7 Indicative Research in airport using SEM (data collection and sample)

This sample size meets the essential requirement for doing factor analysis: having a minimum of 300 instances (Tabachnick & Fidell, 2013) and at least 200 cases for Structural Equation Models (Civelek, 2018). Hence, our sample of 534 meets the suggested minimum sample size for ensuring sampling adequacy. Appentix II contains the questionnaire utilised in this investigation. The survey was conducted using a cross-sectional design, meaning that data was collected within a certain time period, specifically in November 2021.

4.7.3 Data analysis

In this quantitative study, the analysis consisted of both descriptive and inferential numerical analysis, as outlined by Creswell (2009). Researchers frequently need to engage in a coding procedure following data collection in order to undertake a quantitative analysis (Babbie, 2007). In essence, quantitative analysis involves using numerical data to describe and understand the events that are being observed (Babbie, 2007).

4.7.3.1 Descriptive Statistics

The study will begin with a univariate analysis, which entails summarising instances, their frequency distributions, means, and measures of variability (Babbie, 2007). The term "arithmetic mean" is a more accurate way to refer to these types of averages, whereas the standard deviation is a more advanced measure of dispersion.

4.7.3.2 Validity and Reliability

Validity and reliability tests are conducted for the instrument, as it contains scales that are categorised under the same latent variables. At first, a set of tests was carried out to evaluate the accuracy and consistency of the concepts. Reliability refers to the consistent measurement of the same value by a scale under identical conditions. Validity, on the other hand, is a metric that assesses the extent to which we are measuring what we truly intend to measure. If a questionnaire assesses a notion that is distinct from the dimension we intend to test, it lacks validity. The Kaiser-Meyer-Olkin test and Barlett test of sphericity were conducted to evaluate the dataset's appropriateness for principal component analysis. KMO assesses the adequacy of the sample size for conducting principal component analysis (Civelek, 2018). Values that exceed 0.7 are regarded as satisfactory. Sampling adequacy tests were conducted, followed by exploratory factor analysis using varimax rotation. Explanatory factor analysis uncovers factors based on the relationships between variables. Explanatory factor analysis allows for the loading of observable variables onto one or more factors.

Specifically, exploratory factor analyses were performed, along with reliability assessments to assess the internal consistency of the scales using the Cronbach alpha

statistic (Creswell, 2009). Given that all the assumptions were evaluated using structural equation modelling (SEM), further tests were conducted to assess validity and reliability. Specifically, the initial phase involved testing the measurement model. The measurement model assesses the extent to which the observable variables accurately represent the hidden variables (Civelek, 2018). The primary study conducted was confirmatory factor analysis (CFA), which demonstrated the construct validity of the scales. The confirmatory factor analysis validates the specified factor structure using the current data. Put simply, in confirmatory factor analysis, the component that will be associated with an observed variable is preset (Civelek, 2018). The study included many tests, including average variance extracted (AVE), to assess discriminant validity, composite reliability, and convergent validity.

Discriminant validity refers to the extent to which a particular structure in a measurement model is distinct from other structures (Civelek, 2018). In order to determine the discriminant validity of each dimension, the Average Variance Extracted (AVE) was computed. An acceptable result for the AVE is considered to be equal to or more than 0.50. In order to assess the validity, a CFA reliability analysis was performed for each construct. Values over the threshold of 0.70 imply that the scale is dependable (Civelek, 2018). The composite dependability value quantifies the degree of reliability of the scale for each dimension. Composite reliability values greater than or equal to 0.70 indicate the presence of composite reliability (Civelek, 2018).

Prior to conducting research hypothesis testing, it is necessary for conceptual models to satisfy specified model fit indices in such studies. The differentiation between the constructs was assessed using discriminant validity. Structural equation modelling relies on the confirmatory technique. It relies on statistical validation of the theoretical framework. The measuring approach used in this study is confirmatory factor analysis, as stated by Civelek (2018). The table provides information on the tests undertaken to assess validity and reliability, along with their respective acceptable threshold values (see Table 8).

	Coefficients	**Threshold Values**
Validity	Factor Loading	≥.50

	Average Variance Extracted (AVE)	≥.50
Reliability	Cronbach alpha	≥.70
	Composite Reliability	≥.70

Table 8 Validity and Reliability Measures and Criteria

4.7.3.3 Research Hypotheses Tests

Subsequently, the study model was scrutinised using Structural Equation Modelling techniques with SPSS Amos v.21. Structural equation modelling (SEM) is a collection of statistical methods used to estimate the sizes and directions of assumed causal effects in quantitative investigations, regardless of whether they are based on cross-sectional, longitudinal, experimental, or other types of study designs (Kline, 2023).

While the structural equation modelling approach has resemblance to linear regression analysis, it possesses other benefits. Below is a summary of certain qualities that surpass the performance of structural equation modelling. The distinguishing characteristics of structural equation modelling set it apart from other conventional linear modelling methodologies (Civelek, 2018).

- It uncovers the correlation between unobservable structures that are not clearly quantified
- It accounts for any errors in the measurements of the observed variables. The conventional regression method presupposes the absence of any measurement error
- This strategy is very effective for analysing complicated models with various variables and uncovering insights (Civelek, 2018, pp. 4–5).

Structural equation modelling has been a popular statistical tool in social science research in recent years. The primary factor driving the widespread use of this statistical approach is its ability to quantify both direct and indirect correlations among causative variables using a single model. Structural equation modelling is a statistical technique employed to examine the connections between observable and latent variables.

Observed variables refer to the variables that are directly measured during the data collecting process, whereas latent variables are the variables that cannot be directly measured and are inferred by linking to the observed variables. Unlike regression analysis, structural equation modelling is a novel statistical approach that enables the testing of research hypotheses in a single procedure by modelling intricate interactions among several observable and latent variables. Traditional regression analysis is limited to detecting only direct effects. However, structural equation modelling combines both direct and indirect impacts (Civelek, 2018). The SEM analysis followed the standard two-stage analytical techniques, where the measurement model was initially evaluated and then the structural model was analysed (Hair et al., 2020).

Several attributes of such equations include:

- This study examines the links between observed variables and underlying latent variables using hypothesis testing in factor analysis
- Additionally, it explores the potential for doing simultaneous analysis of several variables
- Potential for incorporation into measurement error analysis

In order to assess the importance of the path coefficients and loadings, a bootstrapping technique was employed. This involved generating 5000 resamples to evaluate the precision of the predicted values (Civelek, 2018). Once the model fit indicators were addressed, the study hypotheses about direct and moderating effects were explored. Table 9 below provides a list of prominent researchers who have interpreted their findings using this type of analysis.

Authors/ Year	Methodology	Sample	Analysis of RQ & RH
Ali et al., 2016	Questionnaires (5-point Likert-type scale)	271	PLS-SEM
Han et al., 2017	Questionnaires (5-point Likert scale)	325	SEM
Bezerra & Gomes, 2019	Questionnaires	335	PLS-SEM

	(7-point Likert scale)		
Prentice & Kadan, 2019	Questionnaires	373	SEM
	(7-point Likert scale)		
Han et al., 2020	Questionnaires	250	SEM
	(7-point Likert scale)		

Table 9 Key Research Data Analysis

The research hypotheses being examined by structural equation modelling are as follows:

S_1H_1[7]: Ambiance has a positive effect on airport image

S_1H_2: Signs have a positive effect on airport image

S_1H_3: Cleanliness has a positive effect on airport image

S_1H_4: Airport environment has a positive effect on airport image

S_1H_5: Sense of place has a moderating effect on the relationship between airport environment and airport image

The analysis in the present research follows the recommended sequence outlined by Kline (2023) and is visually represented in the accompanying Figure 13.

[7] S_1 stands for Study 1.

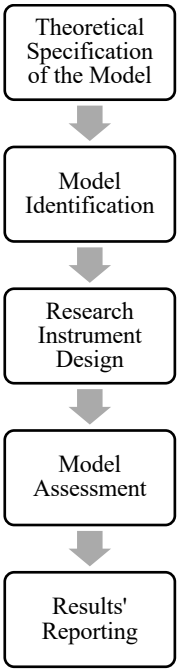

Figure 13 SEM Analysis Basic Steps (Kline, 2023)

Initially, the researcher formulates a theoretical framework by drawing upon current theory and the findings of prior empirical investigations. During this step, we carefully choose the relevant theoretical frameworks and analyse how they are connected to the development of path regressions. Specification entails expressing the researcher's hypotheses as a set of equations that establish the anticipated relationships between observed or unobserved variables. Depending on the hypothesis, these relationships might be classified as either causal or noncausal. The model should comprehensively depict the predicted relationships between the variables. In structural equation modelling (SEM), the outcome variables are called endogenous variables. These variables are influenced by at least one other variable in the model. Endogenous variables typically include error terms, which account for unexplained variance in the sources of those variables. Exogenous variables, also known as independent variables in structural equation modelling (SEM), are strictly causal factors that contribute to the variation of certain endogenous variables in the model. The reason for this is that the model does not include any factors that affect exogenous variables. In other words, the sources of these variables are unknown within the context of the model. After finishing this stage, the theoretical model's causal links are depicted by a sequence of structural

equations, which are graphed to offer a distinct and visual representation of the theory being studied.

Statistical models often need to adhere to specific rules or constraints. One prerequisite is the condition of identification, which pertains to whether each model parameter can be represented as a function of the variances, covariances, or means in a hypothetical data matrix. Alternatively, graphical approaches and identification heuristics, sometimes known as rules of thumb, can be used to ascertain the identification of certain types of models, however not all models can be recognised using these techniques. However, it is crucial to assess identification during the research planning phase and prior to data collection.

In the third phase of the research instrument design, the tasks include choosing appropriate measures, gathering the data, and evaluating them. In the third step of the procedure, the development of the research instrument for gathering quantitative research data is conducted. The measurement scales used for the structural equation modelling (SEM) investigation are meticulously chosen. These processes underwent thorough scrutiny in the preceding parts of this chapter.

The last phase, which pertains to model evaluation, is employing a Structural Equation Modelling (SEM) software programme to carry out the research. Firstly, an assessment of the model's adequacy is performed, which involves determining the extent to which the model accurately describes the data. Frequently, the original model does not accurately match the data. Fit indices or fit statistics are the measurements used in structural equation modelling to evaluate the extent to which the models align with the data. There are several fitness indices documented in the literature (Civelek, 2018). The prevalent variables in the literature that will be utilised in the present study are displayed below:

- CMIN/DF
- CFI
- NFI
- RMSEA
- SRMR

CMIN is an initialism that stands for the likelihood ratio chi-square test. This test demonstrates the congruence between the suggested model and the actual model, and it is the most often employed measure of fitness. A CMIN / DF ratio of less than 3 and an insignificant chi-square value imply that the model's overall fit is within acceptable bounds (Civelek, 2018).

The Comparative Fit Index (CFI) is a statistical measure that evaluates the goodness of fit between a saturated model and an independent model. In the independent model, the dimensions that compose the research model are neither interconnected or interrelated. The range of CFI values is from 0 to 1. Values above 0.90 and close to 1 indicate a strong match (Civelek, 2018). The CFI value of .90 indicates that the researcher's model decreases the raw noncentrality parameter by 90% compared to the baseline model when both models are fitted to the same data (Kline, 2023).

There is a strong correlation between the values of the Comparative Fit Index (CFI) and the Tucker-Lewis Index (TLI), hence it is recommended to publish only one of these two fit indexes (Kline, 2023).

The Normed Fit Index (NFI) is a statistical measure that ranges from 0 to 1. Greater values indicate a more optimal match (Civelek, 2018). Values over 0.90 are considered satisfactory, and values surpassing 0.95 indicate a strong match. It belongs to the category of fit indices that are derived from an independent model.

Root Mean Square Error of Approximation (RMSEA) is a fit metric that compares the average discrepancies between the predicted degrees of freedom in the population. The sample size has a negative impact on this scale. A RMSEA fit index value of 0.05 or below indicates a good fit (Bayram, 2013). Values ranging from 0.05 to 0.08 suggest a satisfactory level of fit (Civelek, 2018). The RMSEA is both an absolute fit index and a noncentrality fit measure. Although it includes a penalty for model complexity, it should be noted that it is not a parsimony-adjusted index (Kline, 2023).

The Standardised Root Mean Square Residual (SRMR) is a fit indicator and statistical measure of the discrepancy between observed and predicted correlations, expressed in a standardised metric. A zero result implies that there is no discrepancy between the observed and anticipated correlations, meaning that there is a perfect fit. Therefore, it may be seen as a statistic that measures the lack of fit (Kline, 2023). A SRMR rating

below .08 is often seen as favourable (Hu & Bentler, 1999). If the measurement model is deemed unacceptable, it is imperative to redefine it and therefore alter the theoretical model. The acceptable values for each metric are as depicted in Table 10 below:

Fit Indices	Acceptable Value
CMIN/DF	< 3
CFI	>.90
NFI	>.90
RMSEA	<.08
SRMR	<.08

Table 10 Acceptable Values of Model Fit Indices (Hu & Bentler, 1999; Civelek, 2018; Kline, 2023)

The final fundamental phase entails providing a precise and comprehensive depiction of the study. During the last phase of structural equation modelling (SEM) analysis, the attention is directed towards understanding and analysing the data acquired from the process of estimating the model. This entails analysing the estimated parameters, such as path coefficients, factor loadings, and correlations between latent variables, in order to evaluate how well the model fits the data. Researchers carefully analyse the importance and scale of these characteristics to assess the intensity and direction of the proposed connections between variables. In addition, diagnostic approaches like as residual analysis and modification indices may be used to detect any model misspecifications or regions that might be improved.

The questionnaire is inherently disruptive to the respondent's life, whether it is due to the time required to complete the survey, the potentially sensitive or threatening nature of the questions, or the potential violation of privacy (Cohen et al., 2007). The first page of the questionnaire featured an ethical statement of consent, which informed participants of the confidentiality, anonymity, and non-traceability of their replies, as well as the use of their data for research purposes. This statement provides a description of the study, outlines the voluntary nature of participation, and acknowledges the freedom to refuse participation (Rudestam & Newton, 2015). In addition, they were

informed of their entitlement to withdraw at any point or choose not to answer specific questions in the questionnaire.

4.8 Study 1b: Qualitative Research

4.8.1 Introduction and Objectives

Based on the sequential explanatory method adopted in this study (Ivankova et al., 2006), qualitative research was performed with the aim of gaining a deeper understanding of the meaning of the results of the quantitative research (Bryman, 2006) and especially the concept of sense of place. Focus groups are, above all, a qualitative research method, and are considered as a "way of listening to people and learning from them" (Morgan, 1998, p. 9). It can be also said that focus groups are a form of group interview that capitalises on communication between research participants in order to generate data, using group interaction as part of the method (Kitzinger, 1995). The objective of such studies is to investigate rather than to provide a final description or explanation (Babbie, 2007). Focus group research is useful for revealing through interaction the beliefs, attitudes, experiences and feelings of participants, in ways which would not be feasible using other methods such as individual interviews, observations or questionnaires.

Focus groups are frequently used to learn about either topics or groups of people that are poorly understood (Morgan, 1998). They can be used both during the preliminary or exploratory stages of a research project, where questions are explored and hypotheses generated, and at later stages for assessing the development, effectiveness or impact of a program of activities (Litosseliti, 2003). Interestingly, focus group discussion of a questionnaire is useful in explaining or exploring survey results (Kitzinger, 1995, p. 311), Reflecting the main objective of the focus group which is to gain a deeper understanding of the meaning of the results of sense of place.

4.8.2 Sample design and data collection

4.8.2.1 Research Sample, Sampling, and Sample Size

The groups can be 'naturally occurring', meaning people that work together (Kitzinger, 1995, p. 311). Using pre-existing groups allows observation of fragments of

interactions that approximate naturally occurring data. An additional advantage is that friends and colleagues can relate each other's comments to incidents in their shared daily lives (Kitzinger, 1995). The participants were selected using purposive sampling, which is often used in qualitative research as it enables researchers to identify participants regarded – based on personal judgement – as the most suitable for answering the research questions and sharing important perspectives on the phenomenon studied (Onwuegbuzie & Collins, 2007; Robinson, 2014).

Focus groups are normally made up of people with certain common characteristics and similar levels of understanding of a topic, rather than aiming for diversity (Litosseliti, 2003). The social sciences typically involve full focus groups with four to six participants. Smaller groups are more appropriate if the aim is to explore complex, controversial, emotional topics, or to encourage detailed accounts (Litosseliti, 2003). Furthermore, smaller groups are recommended when participants are likely to have a lot to say on the research topic (Bryman, 2001). The ideal group size is between four and eight people (Kitzinger, 1995). A focus group may typically last between one and a half to two hours (Kitzinger, 1995; Litosseliti, 2003).

4.8.2.2 Sample Size Estimation

Anyone for whom the topic is relevant can logically be an appropriate participant (Bryman, 2001). Homogeneous groups, with similar needs and interests, work best for most focus group projects (Litosseliti, 2003). Specifically, participants were initially contacted over the phone and asked to participate in the study after an explanation of the research purpose was communicated to them. The maintenance of their anonymity throughout the research process was also ensured. Upon agreement of participation, a follow-up call was made to schedule the focus group on a day and time of convenience for the participants. In the end, four marketing executives working in Larnaca's International Airport (n=4) took part in the focus group which was recorded upon permission and with the signed consent of the participants. The focus group, which took around 90 minutes, was performed in Greek and translated by a professional translator into English. If the objective of the study is to explore and the researcher intends to

provide first insights, ideas, or hypotheses, conducting a single focus group may be enough (Babbie, 2007).

4.8.3 Moderator

Focus groups are facilitated by a moderator (Kitzinger, 1995; Morgan, 1998). Although it may appear to outsiders to be relatively passive, the role of the moderator or group facilitator is absolutely critical (Litosseliti, 2003). A moderator needs to have good, personal, interpersonal communication and management skills. A moderator needs to appear neutral and opinion-free and be confident and in control. A moderator guides the interview while a small group discusses the topics that the interviewer raises (Morgan, 1998). The facilitator should explain that the aim of focus groups is to encourage people to talk to each other rather than address themselves to the researcher (Kitzinger, 1995). The moderator is a well-trained professional who works from a predetermined set of discussion topics (Morgan, 1998). He or she ensures that the key questions are discussed, the discussion develops and the participants do not shift away from the topic of discussion or dominate it.

In order to minimize bias and the risk of manipulation from both the moderator and the participants, critical consideration needs to be given to how much the participants are told about the nature of the research, how leading is the moderator's input, and on how openly participants relate to one another and to the moderator (Litosseliti, 2003). The most immediate and often the most beneficial feedback occurs at the end of the focus group itself. At the end of the focus group, the moderator might offer a brief summary of critical points (Krueger, 1997). Participants are invited to amend or change this oral summary, and if suggestions are offered, the group is asked to confirm or correct new ideas (Krueger, 1997). Providing a succinct 3-minute summary of a 90-minute discussion is daunting but well worth the effort (Krueger, 1997). In the precise study, one member of the research team acted as the moderator of the focus group.

4.8.4 Interview Protocol

As previously mentioned, the focus group method is a form of group interview in which there are several participants (in addition to the moderator); there is an emphasis in the questioning on a particular fairly tightly defined topic; and the accent is upon interaction within the group and the joint construction of meaning (Bryman, 2001). The conversations in focus groups can thus be gold mine of information about the ways that people behave and the motivations that underlie these behaviours. Of course, the goal of understanding complex behaviour may require more than one way of finding out that behaviour, and focus groups can combined with other methods for this purpose (Morgan, 1998). As such, the focus group contains elements of two methods: the group interview in which several people discuss a number of topics; and what has been called a focused interview, in which interviewees are selected because they are known to have been involved in a particular situation (Bryman, 2001). The sequencing of questions is important as it allows maximum insight (Krueger, 1997).

Following a list of pre-determined questions, the moderator first inquired about the expertise of participants in order to establish their experience at the airport. Then, general questions about the airports and airport operations were asked before questions about passenger experiences were made. Last, the moderator asked about participants' viewpoints on the concept of 'sense of place' with the aim of obtaining more comprehensive and in-depth information about airport executives' interpretation of the concept. In particular, participants were asked to share their perspectives on the role of 'sense of place' in an airport. It is worth mentioning that the moderator provided a random prioritization of responses per question in an attempt to minimise Halo effects (Nicolau et al., 2020) and the potential of agreeable responses of subordinates to opinions preceded by more senior members. One systematic step is participant verification (Krueger, 1997). This step ensures that the researcher has adequately understood the intent of participant. This step can occur in several ways, such as including an opportunity for all participants to summarize their thoughts and feelings, the chance to respond to the assistant moderator's summary of key points while still in the focus group, or a post-focus group verification of the written report (Krueger, 1997). Hence, at the end of the study's focus group, participants were debriefed and asked to verify their responses.

4.8.5 Location

Selecting a location is as important as finding the right venue (Litosseliti, 2003). It is best to choose a central location that is easy to find, and that would not be too far for the participants to travel. Furthermore, the room for the focus group sessions should be light and airy, and ideally free of visual or other distractions, such as noise or traffic. Sessions should be relaxed: a comfortable setting, refreshments, and sitting round in a circle will help to establish the right atmosphere (Kitzinger, 1995). Moreover, an oval table sitting ensures the moderator having eye with all the participants.

For this purpose, one focus group was performed in Larnaca's International Airport, which acted as the study's case study, and where is the workplace of the participants of the study. Cyprus is the third largest island in the Mediterranean and represents an important and popular tourist destination in the region. Known for its beaches, warm climate and hospitality, Cyprus has attempted in recent years to enhance its image through the development of an array of tourism products that emphasise authenticity, local culture, history and nature (Farmaki et al., 2017). Hence, it represents an appropriate case to examine the concept of sense of place within an airport environment. In fact, an initiative called "The Sense of Place" was implemented at the airport terminals recently with the aim of promoting the rich cultural identity of the island reflected with local artists' artwork. Session was audio recorded with the microphone being placed on the side of the table (Litosseliti, 2003).

4.8.6 Data Analysis

4.8.6.1 Grounded Theory

Key characteristics of focus group analysis include a disciplined process, systematic steps, a defined protocol, verifiable results and multiple feedback loops (Krueger, 1997). Focus groups can follow two strategies of analysis; analytic induction and grounded theory (Bryman, 2001). The grounded theory approach will be utilised, which can be defined as the theory that was derived from data, systematically gathered and analysed through the research process. Grounded theory derives its theoretical

underpinnings from Pragmatism (Corbin & Strauss, 1990; Dewey, 1997). The procedures of grounded theory are designed to develop a well-integrated set of concepts that provide a thorough theoretical explanation of social phenomena under study (Corbin & Strauss, 1990). On this method, data collection, analysis, and eventual theory stand in close relationship to one another (Strauss & Corbin, 1998). Thus, two central features of grounded theory are that it is concerned with the development of theory out of data and the approach is iterative or recursive as it is sometimes called, meaning that data collection and analysis proceed in tandem, repeatedly referring back to each other (Bryman, 2001). Grounded theory seeks not only to uncover relevant conditions, but also to determine how the actors respond to changing conditions and to the consequences of their actions (Corbin & Strauss, 1990).

4.8.6.2 Analytic procedure

One of the basic tools of grounded theory is theoretical sampling which refers to the process of data collection for generating theory whereby the analyst jointly collects, codes and analyses his data and decides what data to collect next and where to find them, in order to develop his theory as it emerges (Bryman, 2001).

Coding is a basic tool of grounded theory (Bryman, 2001). It is the key process in grounded theory, whereby data are broken down into component parts, which are given names. It begins soon after the collection of initial data. In focus groups, coding of data is considered a systematic step (Krueger, 1997). This process consists of codes placed in the margin of the transcript. Later, the researcher can selectively retrieve and review information pertaining to certain codes, combinations of codes or related situations. This information can then be reassembled differently from the original version. It entails reviewing transcripts and/or fields notes and giving labels to component parts that seem to be of potential theoretical significance and/or that appear to be particularly salient within the social worlds of those being studied (Bryman, 2001). There are three main types of codings. Initially, concepts are produced through open coding (Bryman, 2001). Open coding is the interpretive process by which data are broken down analytically (Corbin & Strauss, 1990). Open coding is the process of breaking down, examining, comparing, conceptualizing and categorizing data. This process of coding yields concepts, which are later to be grouped and turned into categories. Open coding

stimulates generative and comparative questions to guide the researcher (Corbin & Strauss, 1990). Afterwards, axial coding follows which is a set of procedures where data are put back together in new ways after open coding by making connections between categories (Bryman, 2001). In axial coding, categories are related to their subcategories, and the relationships tested against data (Corbin & Strauss, 1990). This process, which is called axial coding, allows the researcher to fracture the data and to reassemble them in new ways (Krueger, 1997). This is done by linking codes to contexts, to consequences, to patterns of interaction, and to causes (Bryman, 2001). The last part of coding is selective coding, which is the procedure of selecting the core category, systematically relating it to other categories, validating those relationships and filling in categories that need further refinement and development (Bryman, 2001). Selective coding is the process by which all categories are unified around a "core" category, and categories that need further explication are filled-in with descriptive detail. This type of coding is likely to occur in the later phases of a study (Corbin & Strauss, 1990). A core category is the central issue or focus around which all other categories are integrated (Bryman, 2001). The core category represents the central phenomenon of the study (Corbin & Strauss, 1990). These three types of coding are really different levels of coding and each relates to a different point in the elaboration of categories in grounded theory.

4.8.6.3 Verification

Analysis must be verifiable (Krueger, 1997). The data stream begins with field notes and recordings taken during the focus group, continues with the oral summary (verification) of key points during the focus group, goes into the debriefing with the moderator team immediately following the focus group, and also includes the electronic recording, with the possibility of an interview transcript. Discussion with other researchers often lead to new insights and increased theoretical sensitivity as well (Corbin & Strauss, 1990). This step ensures that the researcher has adequately understood the intent of the participant. This step can occur in several ways, such as including an opportunity for all participants to summarize their thoughts and feelings, the chance to respond to the assistant moderator’s summary of key points while still in the focus group, or a post-focus group verification of the written report (Krueger, 1997).

During such research, the principal investigator is responsible for keeping the data anonymous and for analysing and publishing the data in ways that respect confidentiality. Participants in a focus group are also responsible for keeping confidential what they hear during the discussion, and the moderator should encourage them to do so (Litosseliti, 2003). The researcher must provide a "Statement of Informed Consent" to the participants (Morgan, 1998). Such statements tell the participants about both the potential risks in the project and their rights as participants in the project. Individuals engaged in social scientific research must possess knowledge of the commonly accepted principles and practices governing the process of scientific investigation (Babbie, 2007). The ethical principles of voluntary involvement and nonmaleficence have been codified in the notion of informed consent. This regulation stipulates that individuals must make an informed decision to participate in research endeavours, taking into account the potential hazards associated with such involvement. In this initial investigation, the principal investigator ensured participants that their identities would remain anonymous and their comments would be kept secret (Babbie, 2007). Figure 14 illustrates the doctoral thesis' steps overview.

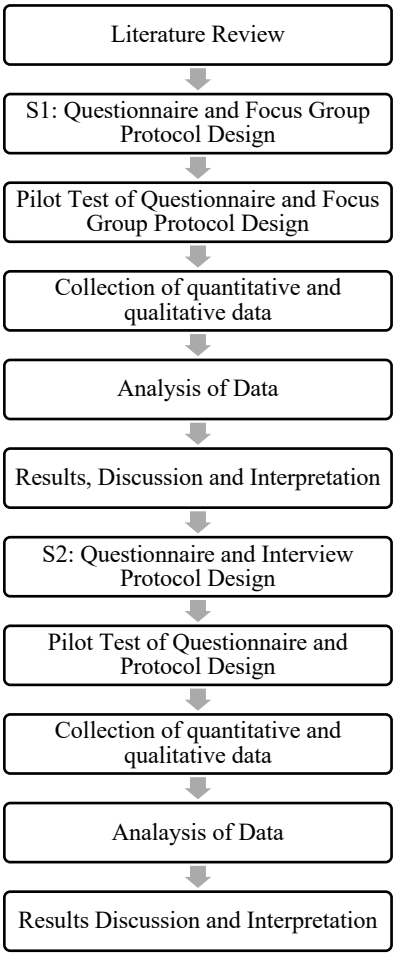

Figure 14. Thesis' research steps overview

5 Findings I

5.1 Introduction

The present chapter illustrates the findings of the present doctoral thesis, presented into the two main studies. Study 1, and Study 2. Each of the studies engage their respective studies, with the sample description and relevant analysis being thoroughly presented.

5.2 Study 1a: Quantitative Research

5.2.1 Sample Description

Approximately 686 people were contacted, with 152 excluded for failing to respond to the control check or withdrawing. The requirement for them to fill out the questionnaire was that they had travelled during the previous month. As a result, the final sample (n) included 534 international travellers. The diminution in sample size was mostly caused by data outliers that were identified. The demographic characteristics of travellers are shown in Table 11. The sample was fairly evenly split across gender as 49% were female and 51% were male. In terms of age (M= 43), the two largest groups were 26-35 years of age counting a percentage of 41.8%, and 18-25 years of age with a percentage of 35.8%. Nearly all participants had completed high school, with 36.7% of the individuals holding a bachelor's degree. The majority of the participants were European since more than half counted to 86% of the final sample. Furthermore, more than half of them visited the host-country for pleasant and relaxing purposes (54.1%) with a duration of stay up to one week (51.5%). Speaking of the type of travellers, alternatively the frequency of travel, the majority of the sample were infrequent travellers (52.1%), moderate travellers follow (34.8%) with the rest of them being frequent travellers (13.1%).

Characteristics	n	%
Gender		
Male	270	51%
Female	264	49%
Age		
18-25	191	35.8%
26-35	223	41.8%
36-45	70	13.1%
46-55	37	0.6%
More than 56	13	8.7%
Education		
High School Graduate	73	13.7%
College Graduate (diploma)	83	15.6%
Undergraduate (bachelor's degree)	196	36.7%
Postgraduate (master's degree)	161	30.1%
Ph.D. (philosophy's degree)	9	1.7%
Other	12	2.2%
Ethnicity		
European	459	86%
American	6	1.1%
Asian	16	3%%
Other	38	9.9%
Travel Frequency		
0-2 trips in a year	278	52.1%
3-5 trips in a year	186	34.8%
More than 5 trips in a year	70	13.1%

Total (n) = 534

Table 11 Sample's Characteristics

5.2.2 Factor Analysis

Prior to examining the relationships between travellers' evaluations of airport, each construct with its corresponding items was subjected to exploratory factor analysis (EFA). Generally, it is expected to have at least 300 cases for factor analysis (Tabachnick et al., 2013), with our case exciding that threshold. Both Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and the Barlett's test of sphericity were also requested using IBM SPSS v.21 and prior to EFA. An EFA (Table 16) was conducted with all 31 items using principal axis factoring extraction with a varimax orthogonal rotation procedure. Items that loaded onto multiple factors (with coefficients in excess of 0.30) or items that did not load onto factors very strongly with coefficients

less than 0.50 were removed (i.e., temperature, music, aromas, interior decoration). This resulted in 27 items. Hence, the first factor, ambience, was composed of three items (M= 4.77, σ=1.48). The second construct, signs, included 8 items (M=5.26, σ=1.25). Functionality was made up from 4 items (M=5.06, σ=1.33). To continue with, the construct of cleanliness consisted of 3 items (m = 5.67, σ=1.12) while the construct of image was made up from 4 items (M= 4.97, σ=1.32). Last but not least, the moderating variables of sense of place had 5 items (M= 4.08, σ=.1.55). In order to determine the reliability of each factor, Cronbach α estimates were assessed. One of the most commonly used indicators of internal consistency is Cronbach's alpha coefficient. Ideally, the coefficient of a scale should be above 0.70 (DeVellis, 2012). In this case, all the constructs met the threshold value with reliabilities being more than 0.70, except functionality. However, values as low as 0.60 are deemed also acceptable in social contexts (Field, 2018). Specifically, as shown in Table 16, ambience scored Cronbach α of 0.88, signs had a measure of 0.76, functionality scored 0.62 and cleanliness 0.76. Additionally, the construct of image scored Cronbach α of 0.89 while sense of place 0.90.

5.2.2.1 KMO and Barlett tests

Prior to examining the relationships between travellers' evaluations of airports, each construct with its corresponding items was subjected to exploratory factor analysis (EFA). Using IBM SPSS v.21, both Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Barlett's test of sphericity were consulted. The KMO of all factors were more than the threshold of 0.60 and all the Barlett's test of sphericity values were statistically important at .01 level (Field, 2018).

5.2.2.2 Confirmatory Factor Analysis

After purifying the scales, confirmatory Factor Analysis (CFA) was undertaken to establish a measurement model. In essence, this served as the first of two steps. Initially, CFA was conducted to establish a measurement model followed by Structural Equation Modelling (SEM) to examine the relationship between the factors using IBM AMOS v.21. The CFA (Table 16) began with the addition of each factor and its corresponding items one after another to develop an ideal model. Though this ideal model had numerous cross-loaders and error covariances specified, the model was trimmed to

remove error items to arrive at the final acceptable measurement model. Items were removed from the model if the standardized factor loadings fell below 0.50 (Hair et al., 2020)or if they loaded onto incorrect factors. Using these criteria, 7 items were removed from the CFA and specifically 2 from the construct of signs, whole the construct of functionality that counted 4 items, and 1 of the construct of image. The final measurement model contained 20 items: ambience concerning 3 items (M= 4.77, σ=1.48); signs comprised of 6 items (M=5.38, σ=1.22); cleanliness consisted of 3 items (m = 5.67, σ=1.12); image concerning 3 items (m = 4.85, σ=1.35); and sense of place consisted of 5 items (M= 4.08, σ=.1.55).

First, the measurement model was tested for convergent validity and reliability. These were assessed through factor loadings, Composite Reliability (CR), and Average Variance Extracted (AVE). Table 16 indicates that all item loadings exceeded the recommended value of 0.50 (Chin et al., 2008). Composite reliability values, which depict the degree to which the construct indicators indicate the latent construct, exceeded the recommended value of 0.60. In Table 16, the construct of signs has an AVE below 0.50 but as composite reliability is more than .60 it can be accepted (Lam, 2012).

5.2.2.3 Convergent Validity and Reliability

First, the measurement model was tested for convergent validity and reliability. These were assessed through factor loadings, Composite Reliability (CR), and Average Variance Extracted (AVE). Table 12 indicates that all item loadings exceeded the recommended vale of 0.60 (Chin et al., 2008). Composite reliability values, which depict the degree to which the construct indicators indicate the latent construct, exceeded the recommended value of 0.50 (Hair et al., 2013).

EFA					CFA		
Factor and Corresponding Item	**m**	**SD**	**Factor Loading**	**α**	**Factor Loading**	**AVE**	**CR[1]**
Ambiance	4.77	1.48		0.88		0.76	0.88
The colour schemes were attractive	4.73		0.88		0.86		
The architecture was appealing	4.74		0.94		0.88		
The brightness was welcoming	4.83		0.88		0.88		
Signs	5.26	1.25		0.79		0.44	0.67
The airport's signs clearly directed me to parking services	5.46		0.69		0.70		
The airport's signs clearly directed me to terminals	5.96		0.73		0.72		
Layout was properly designed to cater passengers with special needs	4.91		0.60		0.60		
Well-known retail and dining options were available	5.26		0.60		0.61		
Layout was properly managed to avoid passsenger crowding	5.05		0.69		0.66		
The signs and electronic displays provide information accurately and clearly	5.66		0.63		0.67		
*The airport's signs clearly directed me to ATM services**	4.70		0.60		-	-	-
*Baggage trolleys were available and conveniently located**	5.09		0.63		-	-	-
Functionality*	5.06	1.33		0.62		.28	0.31
The electronic facilities were informative	5.63		0.67		0.66		
There were adequate power sockets for charging devices	4.26		0.70		0.44		
The mobility services were properly working	5.49		0.66		0.45		
There was comfortable and spacious seating in waiting areas	4.87		0.71		0.55		
Cleanliness	5.67	1.12		0.76		0.53	0.64
Restrooms and bathrooms were kept clean	5.75		0.81		0.67		
Retail, dining and enternainment were kept clean	5.55		0.85		0.78		

Walkways, exits and baggage claim areas were kept clean	5.72		0.82		0.70		
Airport Image	4.97	1.32		0.89		0.67	0.80
I have a favorable image of the airport	4.99		0.86		0.84		
The atmosphere of the airport was excellent	4.83		0.90		0.85		
The airport gave a sense of friendliness	4.72		0.82		0.75		
*The overall image of the airport was satisfactory**	5.33		0.90		-	-	-
Sense of Place	4.08	1.55		0.90		0.60	0.82
The airport reflected the national identity of the host country	4.24		0.81		0.78		
The interior as well as the exterior of the airport were designed using the host country's distinctive character	4.14		0.81		0.72		
The uniform of customer service's staff was designed using the host country's distinctive character	4.11		0.87		0.80		
I could 'feel' the host country while in the airport	3.77		0.83		0.78		
The host country's 'flavors' could be sensed almost everywhere in the airport	4.14		0.89		0.79		

Note: EFA = Exploratory Factor Analysis | CFA = Confirmatory Factor Analysis | AVE = Average Variance Extracted | CR^1 = Composite Reliability | (*) denotes item or construct removed | Cron. **α**

Table 12 Measurement Model and Summary Statistics

The next step was to assess the discriminant validity, which refers to the extent to which the measures are not a reflection of some other variables; this is indicated by low correlations between the measure of interest and the measures of other constructs. Table 13 shows that the square root of the AVE (diagonal values) of each construct is larger than its corresponding correlation coefficients pointing towards adequate discriminant validity (Fornell & Larcker, 1981). Although some of the correlations were over 0.70, the square root of average variance extracted for each construct exceeds the correlations between constructs, hence the result indicates discriminant validity as per the respective literature (eg. Prentice & Kadan, 2019).

Constructs	**1**	**2**	**3**	**4**	**5**
Ambiance	**0.872**				
Signs	.657***	**0.661**			
Cleanliness	.438***	.681***	**0.725**		
Airport Image	.670***	.777***	.605***	**0.816**	
Sense of Place	.455***	.269***	.184***	.566***	**0.778**

Values on the diagonal (bolded) are square root of the AVE while the off-diagonals are correlations.

***p<.001

Table 13 Discriminant Validity

Table 14 reflects and the weights of the first order constructs on the designated second order construct indicating that an airport's environment is a second-order factor with three significant first order dimensions including ambiance, signs, and cleanliness.

Second-order construct	**First-order constructs**	**Weight**	**CR^2**
Airport Environment	Ambiance	0.75	*
	Signs	0.89	11.000
	Cleanliness	0.67	10.206

*Item fixed to set the scale.

Notes: CR^2 = Critical Ratios.

All values were at p<.001 level

Table 14 Second-order Construct

5.2.3 Hypothesis tests

The hypotheses of the research model were tested with two structural equation path models using IBM AMOS v.21. The first model involved testing H1-H3. Another model tested H4 and H5 which considered the direct effect of airport environment as a second-order construct on airport image and sense of place as moderator between airport environment an airport image. The hypothesised relationships in the model were tested simultaneously by using a structural equation model. The proposed model provided an adequate fit to the data, as it yielded $\chi 2/df = 2.92$, with the following fit indices: comparative fit index (CFI) = 0.94; Tucker–Lewis index (TLI) = 0.92; root mean square error of approximation (RMSEA) = 0.06; and standardized root mean square residual (SRMR)= 0.05. According to Browne and Cudeck (1992), a TLI and CFI of at least 0.90, indicates an acceptable incremental fit of the data. Also, a RMSEA and SRMR value below 0.08 are deemed acceptable (Hu & Bentler, 1999).

Within the model, the estimates of the structural coefficients provided the basic tests of the hypothesised relationships (see Table 15). The effects of each environmental stimuli on airport image were first addressed (Hypothesis 1,2,3). The expected relationship between ambiance and airport image (Hypothesis 1) was supported by the positive path coefficient (standardized $\beta = .33$), statistically significant at the $p < .001$ level. Furthermore, signs affected airport image (standardized $\beta = .43$, $p < .001$), thus supporting Hypothesis 2. Hypothesis 3 proposed that cleanliness affects airport image. The empirical results showed that signs do have a positive affect on airport image (standardized $\beta = .15$, $p < .05$). Thus, Hypothesis 3 was supported. Next, the effect of airport environment as a whole on airport image (i.e., Hypothesis 4) was also supported (standardized $\beta = .72$, $p < .001$).

5.2.4 Moderation model results

This study hypothesised that sense of place would have moderation effect on the relationship between airport environment and airport image. To test this moderating effect, airport environment (predictor) with sense of place (moderator) was multiplied to

create interaction constructs (airport environment x sense of place) to predict passengers' airport image. As Table 15 shows, the estimated standardized path coefficients for the effect of sense of place on airport image (standardized β = .20, p <.01) was significant. This indicates that, portraying the cultural identity in international airports moderates the relationship between airport environment and airport image. Hence, Hypothesis 5 was accepted.

Finally, several demographic-oriented and travel-oriented variables were controlled on passengers' airport image. The study demonstrated that passengers' gender, age, and travel frequency are important determinants of satisfaction. However, both gender (β = .04, p = .252), age (β = .03, p = .443), and travel frequency (β = .03, p = .359) had no significant effect on travellers' airport image.

Hypotheses	**Beta**	**p Value**	**Decision**
H1: Ambiance → Airport Image	.33	p<.001	*Supported*
H2: Signs → Airport Image	.43	p<.001	*Supported*
H3: Cleanliness → Airport Image	.15	p<.05	*Supported*
H4: Airport Environment → Airport Image	.72	p<.001	*Supported*
H5: Airport Environment x Sense of Place → Airport Image	.20	p<.01	*Supported*

Notes: Fit statistics: χ2/df = 2.92; TLI = .92; CFI = .94; RMSEA = .06; SRMR = .05

Table 15 Hypothesis Testing

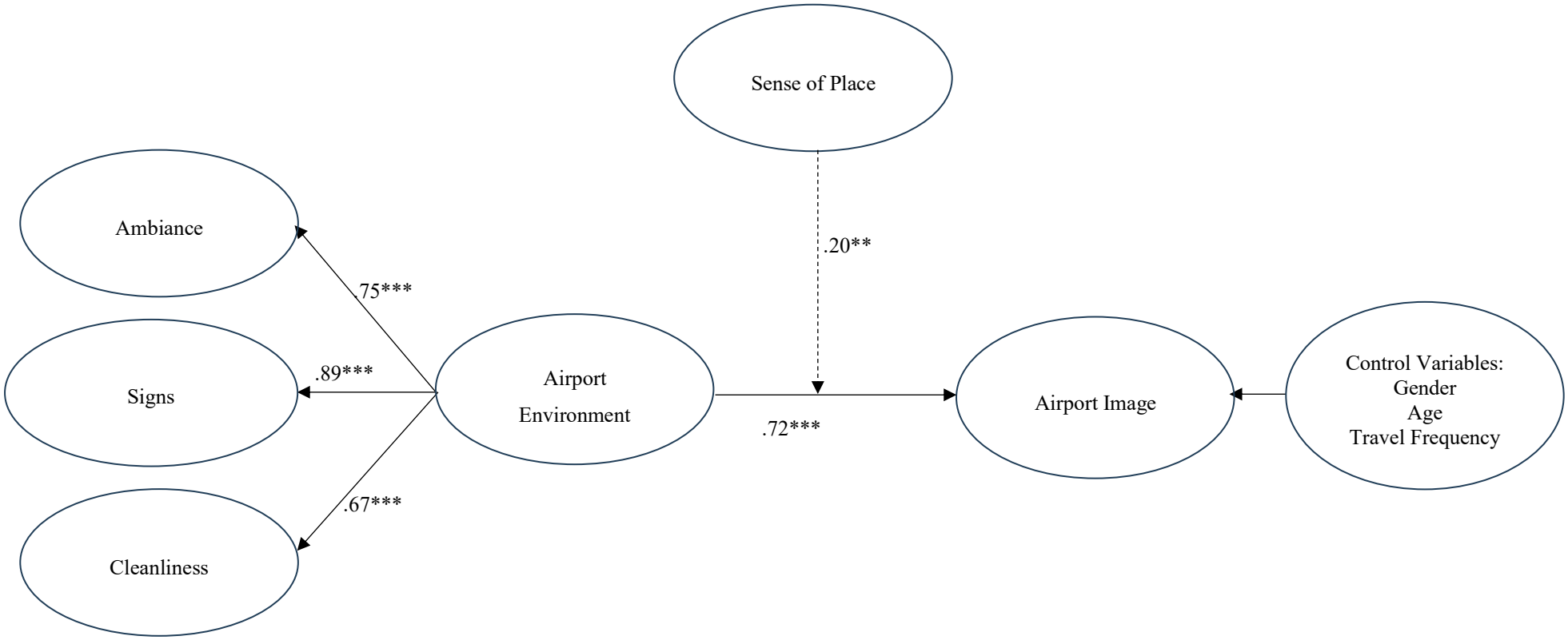

Figure 15 Results of the conceptual model Study 1

5.3 Study 1b: Qualitative Research

This sub-chapter presents the outcomes of the qualitative method based on data collected through focus group discussion. The study used thematic analysis methodology guided by Strauss's methodological framework to delve into the diverse opinions and experiences provided by participants. The analysis included three independent coding processes, each targeted at revealing underlying themes and patterns in the data. The following sections go into detail about the coding process, showing the logic and methods behind each phase. As mentioned in the previous chapter of methodology, one focus group was performed in July 2021 with four marketing executives working (n=4) at the Larnaca airport in Cyprus, which acted as our case study. The participants were selected using purposive sampling. The chapter's extensive analysis strives to illustrate the complex dynamics and insights gained from focus group discussion, so leading to a better understanding of the research issue.

5.3.1 Validity and Reliability

The translated transcripts were checked by two members of the research team for accuracy and to maximise analytical integrity. Data reliability was ensured through evaluative rigor (Kitto et al., 2008) in both the data collection and analysis phases. For example, the participants were asked to validate the transcripts whereas verbatim descriptions of their opinions are included in the paper. Participants' quotes are shown using initial letters to respect participants' privacy.

5.3.2 Sample's characteristics

Participants (see Table 16) were coded from P1 to P4 to ensure anonymity. P1 was a Marketing and Communications Director (55). P2 was a Marketing and Communications Manager (34), P3 was the Senior Marketing Communications Offer (30). P4 was a Marketing Specialist (27).

Participant	Gender	Age	Position
P1	F	55	Marketing and Communications Director
P2	F	34	Marketing and Communications Manager
P3	M	30	Senior Marketing Communications Officer
P4	F	27	Marketing Specialist

Table 16 Focus Group Participants' Demographics

5.3.3 Themes and Perspectives

First, the transcripts were read by the researchers separately to maximise analytical integrity and with the aim of identifying key themes (open coding) in a theory-driven manner(Braun & Clarke, 2006). Then, at the second round of coding, the themes were combined and compared to enhance the objectiveness of the data interpretation (axial coding). In this way, topics emerged that the researchers categorised into interrelated themes which were subsequently refined, leading to the creation of sub-categories (Goulding, 1999). Finally, a third round of coding was undertaken whereby sub-categories were combined with the themes to validate relationships (Strauss & Corbin, 1990). This process resulted in three overarching themes: a) airport environment which encompasses perceptions of the importance of environment in an airport as well as passenger views, b) sense of place marketing which includes perceptions over airport environmental stimuli and the importance of the concept of sense of place within airport settings and c) airport image referring to perceived airport image by passengers, monitoring tactics of airport image and perceptions over the relationships between airport image and destination image.

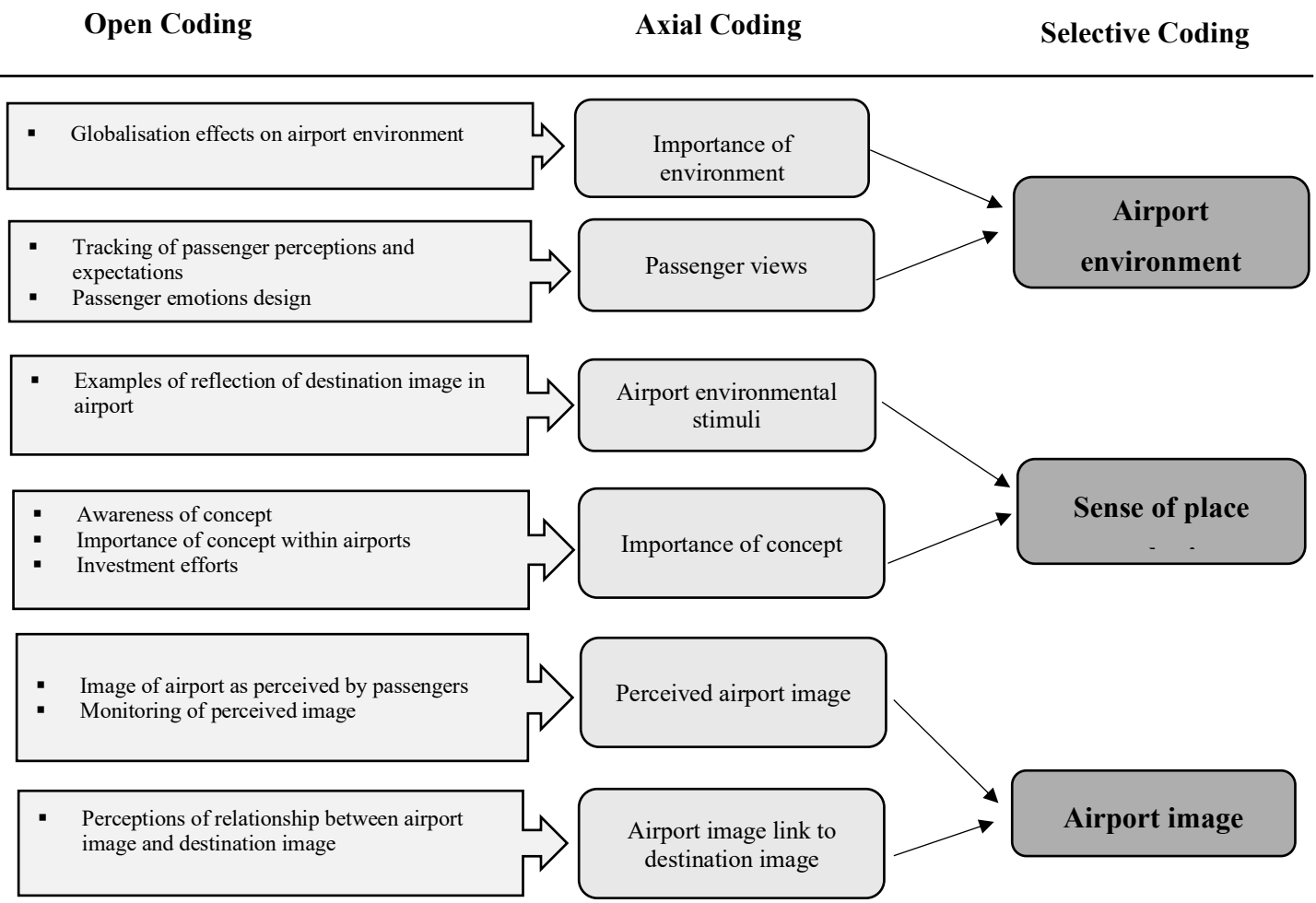

Figure 16 Qualitative Data Structure of Study 1

5.3.4 Results

Insights gathered from the focus group with airport executives emphasised the importance of the airport environment in influencing the experiences of travellers. The participants were first asked to share their views on the importance of the airport environment in light of globalization, which has largely led to airports appearing uniform. "*This may be the case in the USA but in Europe most airports reflect local cultural characteristics…in European airports there is a commercial evolution due to the commercialization of air travel, so airports are regarded as travelling commodities*" elaborated one participant [F, marketing and communications director]. The executives revealed that there are ongoing upgrades taking place to improve the atmosphere, but they also pointed out that there is a lack of quantitative assessments about the airport's overall image and experience. With regard to airport monitoring tactics of passenger views, the participants argued that there are passenger satisfaction surveys conducted on an ad hoc basis, however, passenger expectations are not monitored per se. Rather, the participants mentioned that a survey on visitor tracking using sensors was conducted recently to examine the route of passengers within the airport settings. As the participant elaborated *"indeed, we investigate more travellers' motions and directions rather than their experience evaluations"* [M, senior marketing communications officer].

The discussion then moved to the concept of sense of place which all participants were aware of. The executives had a strong understanding of the concept of 'sense of place,' especially in relation to an ongoing project. The strategic plans involved incorporating many aspects of Cypriot culture into the airport setting, including interior decor, audio atmosphere, and culturally important features. Specifically, the participants were asked to explain how different stimuli are being managed within the airport to reflect the destination image. Various examples were shared such as the use of natural environment elements, local food options in the airport restaurants and visual displays and artifacts (i.e., photos, lacework) depicting the destination among others. As a participant [F, marketing specialist] described "*we included local plants in common areas and use audio with the sound of waves and birds that remind passengers when they land that they have arrived on an island*". Another participant [M, senior marketing communications officer] added that "*medieval artifacts were placed at the*

check in desks as well as other objects from different historical periods of the destination" with the aim of depicting the heritage of Cyprus. In this context, the participants agreed that sense of place was highly important in airport settings not only because it reflects a destination's image but also because "*it differentiates an airport from others*" [F, marketing specialist]. Hence, as the participants explained, efforts are being undertaken in recent years to invest on the sense of place of the Larnaca airport.

Last, the participants were asked to describe the airport image as perceived by passengers. As observed by one of the participants *"the specific experience, perception and image the visitors retain, is not totally apparent"* [F, marketing and communications director]. The airport executives admitted to not having a clear idea of the perceived airport image due to lack of relevant surveys and, instead, argued that the emphasis placed by airport management is on promoting a hospitable, modern destination that reflects the strong and important assets of Cyprus. In relation to this point, the participants elaborated further that destination image and airport image are "*not completely independent but not necessarily connected*" [M, senior marketing communications officer]. As a participant put it:

> Airport experience is not the only factor influencing destination image as a visitor may have a positive airport experience but negative accommodation experience. [F, marketing and communications director]

The investigation provided the researchers with information regarding the relationships that are apparent in literature, confirming the direct impact of an airport environment and its aspects on the airport's image. Nevertheless, results revealed that there is lack of measurement of travellers' image and experience evaluations. Furthermore, given that "sense of place" is a word commonly used and considered an important goal for airport executives, this study further supports the notion regarding the impact of sense of place. The executives appeared to be cognizant of the importance of cultural identity, demonstrating a prioritisation of specific sense of place stimuli on airport grounds. This

gives rise to avenues for enhancing the measurements of sense of place in the future as current measurement items in the literature focus on generic formats.

6 Research Methodology II

6.1 Study 2a: Quantitative Research

6.1.1 Research Instrument

Questionnaires were employed in Study 2 to get assessments from passengers regarding the airport surroundings in their home countries. As a general statement, questionnaires provide numeric descriptions upon the visitors "attitudes and opinions" (Creswell, 2009, p. 137) with economy in design (Fisher & Buglear, 2010).

6.1.1.1 Pilot Study for the questionnaire design

Given that the research was conducted using a structured questionnaire, it was necessary to prototype and modify the questionnaire to ensure that the final version includes a comprehensive range of possible replies that may be fairly anticipated (Cohen et al., 2007). The questionnaire was sent to three marketing academics for evaluation, during which various grammatical and structural modifications were implemented to improve the clarity of specific phrases and ensure its coherence and length. To achieve optimal outcomes, a pilot was undertaken with a sample of 20 travellers. The purpose of this study was to ensure that all questions were comprehensible and to identify any potential issues or challenges (Bryman & Bell, 2011). In addition, the purpose of piloting the questionnaire was also to:

- Review the instructions and layout,
- Resolve any ambiguities or difficulties in phrasing,
- Assess the readability levels, and obtaining feedback on leading questions.
- Assess the duration of the questionnaire and determining if it was excessively lengthy or insufficiently brief (Cohen et al., 2007, p. 341)

6.1.1.2 Questionnaire of the quantitative study

Study 2 was carried out using a standardised questionnaire for the current investigation. Highly organised, limited questions are valuable because they can produce response frequencies that can be easily analysed and treated statistically. The overall number of questions utilised was 53, which were separated into sub-sections.

The questionnaire was divided into five sections: a) airport environment, b) emotions, c) satisfaction, d) sense of place and environmental responsiveness, and e) demographics. Previous studies were used to get measurements for the aspects of the airport environment, including ambiance, layout, personnel, and safety (Bitner, 1992a; Fodness & Murray, 2007; Mainardes et al., 2021; Taheri et al., 2020). The measurement items in the study were derived from prior research. The concepts of Pleasure and Arousal, which fall under the category of emotions, were taken from Sherman et al. (1997) and consisted of 5 items each. Although this study was originally undertaken for the restaurant business, the scales were modified to suit the specific setting of the airport. In addition, pleasure was measured using three questions taken from Oliver (1980), while the concept of feeling of place was adapted from Ariffin et al. (2015). The measurement items for environmental responsiveness were taken from Eroglu et al., (2003) and modified to suit the specific context of airports. All items, except those on the naming of the home-country airport and demographics, were assessed using 7-point Likert scales. In the Likert questions whing ranged from 1 to 7, 1 represented strongly disagree, 2 indicated disagree, 3 reflected somewhat disagree, 4 expressed the state of neither agree nor disagree, 5 represented somewhat agree, 6 reflected agree and 7 indicated strongly agree. These scales are highly beneficial tools for researchers since they incorporate a level of sensitivity and distinction in their response, while also producing numerical data (Cohen et al., 2007). This scale range is chosen for its tendency to yield greater reliability and internal consistency ratings (Preston & Colman, 2000).

The questionnaire adhered to a predetermined sequence of inquiries aimed at aiding passengers in recollecting their memories of the airport experience. At first, the participants were inquired about the airport in their country of residence using an open-ended inquiry. It is recommended that first questions be straightforward in order to promote engagement and enhance the respondent's confidence (Cohen et al., 2007).

Next, participants were queried about the overall atmosphere of the airport, with a total of five items. These five questions captured the stimuli of scents, temperature, music, noise, and colour schemes. This was then followed by a series of more detailed inquiries pertaining to the airport's layout, consisting of seven items. In this parameter, travellers were asked about cleanliness, seating, passenger crowding, availability of bars and restaurants, Internet/WiFi connectivity, helpfulness of signs and clarity of signs. Subsequently, participants were asked about the staff, with a total of nine items. These nine items engaged questions upon employees' helpfulness, acceptable behaviour, knowledge, trustworthiness and satisfactory treat. Further questions in this parameter engaged questions about the check-in staff efficiency and behaviour. Lastly, participants were questioned regarding safety, with a total of four items. These four items captured questions about the necessary measures, feelings of safety, and waiting times for both passport controls and luggage and x-ray processes.

Subsequently, during the intermediate portion of the questionnaire, participants were queried about their internal conditions, namely their emotional states in relation to both pleasure and arousal. This section consisted of a total of ten items, with five items pertaining to each aspect. At this juncture, additional challenging inquiries were undertaken (Cohen et al., 2007). Upon completion, they were relocated to assess their satisfactory levels with three specific items. These items captured their right decision to choose that airport, their expectations, and their general happiness towards the airport.

As a final part of the questionnaire, participants were asked to evaluate the presence or absence of a sense of place in the airport using five items. The precise parameter engaged questions related to the reflection of their national identity, the interior and interior of the airport, the employees' uniform, and the general representation of their home country. Additionally, they were asked to assess various aspects of their environmental responsiveness using five items. At this point, questions captured their responsiveness towards the general airport environment, noise – colours – lighting, their responsiveness towards decorations, layout and finally employees' behaviour. In the latter part, non-threatening factual inquiries were initiated, namely those related to demographics and travel (such as gender, age, education, income, ethnicity, trip purpose, travel frequency, and duration of stay). The questionnaire was sequenced in a manner that followed a funnelling process, starting with generic questions and gradually

becoming more specialised. This approach was adopted to improve the overall sequencing of the questionnaire, as suggested by Cohen et al. (2007).

6.1.2 Sample design and data collection

6.1.2.1 Research Sample, Sampling and Sample Size

A sample may be defined as a subset of the population that is chosen for the purpose of inquiry. A subset of the population is selected using either a probability or a non-probability methodology (Bryman, 2001).

Similar to the discussion in Study 1, the sampling method used in this example may be classified as *non-probability*. The primary researcher intentionally selected passengers who were staying in particular hotels for investigation. The current study employs quota sampling as the specific sort of sample method (Cohen et al., 2007). Quota sampling is considered to be the non-probability counterpart of stratified sampling, and it involves three phases that must be followed while doing a quota sampling. The primary condition for the sample was that they had travelled during the past two weeks prior to answering the questionnaire. Moreover, the sample quotas were determined according to demographic parameters. More precisely, the goal is to achieve a balanced distribution of genders, to assure the inclusion of various age demographics, and to have a representation of both regular and infrequent visitors.

As also mentioned in previous sub-chapter, the primary objective of the study is to obtain responses from at least 150 respondents in order to minimise sampling error (Bryman, 2012). Determining the appropriate sample size is a complex task that relies on several factors, and there is no universally correct solution to this question (Bryman, 2001).

The minimum sample size required for structural equation modelling is determined by the number of parameters that may be estimated in the model. Specifically, it is recommended to have a sample size that is at least 10 times the number of parameters. Moreover, it is recommended to have a minimum sample size of 150 for conducting structural equation modelling (Bentler & Chou, 1987) where others suggest it should be

200 (Çelik & Yılmaz, 2013 as cited in Civelek, 2018). The current study of the thesis meets the threshold criteria on the sample size (see Chapter 4.7.2.1).

6.1.2.2 Sample size estimation

The survey was conducted by researchers through in-person contacts with a quota sample (Taheri et al., 2020). The researcher-administered surveys are a type of survey that is conducted through interviews. Interview methods for collecting survey data are advantageous because the presence of the interviewer may assist in clarifying any questions from the respondents and can encourage the respondents to provide comprehensive replies (Cohen et al., 2007). There is evidence that in-person meetings enhance the pace at which people respond. Data collection of this nature provides enhanced options to regulate the survey environment, specifically with regards to privacy, noise, and external disturbances (Cohen et al., 2007). Moreover, interview surveys may ensure that only the respondent themselves answers the questions.

Consequently, international tourists were solicited at hotel lobbies located in the Famagusta district of Cyprus. Before taking part in the survey, respondents underwent a screening procedure to verify that they met the eligibility requirements for the study. To be eligible to answer the questionnaire, respondents must have flown within the past two weeks. The implementation of this screening criterion was essential in order to verify that the respondents possess up-to-date and pertinent expertise with the airport in their native country. Upon declaring their readiness to participate, travellers were informed of the goal of the research. The survey had a duration of around 20 minutes. A grand total of 384 questionnaires were gathered, of which 376 were considered suitable for additional analysis processes. This sample size meets the essential requirement for doing factor analysis, which is to have a minimum of 300 instances (Tabachnick & Fidell, 2013) and at least 200 cases for Structural Equation Models (Civelek, 2018). Hence, our sample of 376 meets the suggested minimum sample size for ensuring sampling adequacy. Appentixx II contains the questionnaire utilised in this investigation. The survey was conducted using a cross-sectional design, meaning that data was collected within a certain time period, specifically the summer months in Cyprus from May to October 2023. The selection of sampling days and hours was based

on periods of peak visitor density. The development of the data gathering programme was conducted in cooperation with the management and personnel of the key tourist destinations. Therefore, considering the hours when the target audience is most likely to be present, the timetable for data collecting was established accordingly. Travellers' were contacted from Monday to Friday between the hours 10 am until 2 pm. On Saturdays they were contacted between the hours 9 am and 12 pm (see Table 17).

Authors/ Year	Methodology (data collection process)	Sample
Moon et al., 2017	Online survey	251
Han et al., 2018	Survey at the airport	354
Prentice & Kadan, 2019	Online survey	373
Bezerra & Gomes, 2019	Survey at the airport	335
Batouei et al., 2020	Survey at the airport	377
Mainardes et al. 2021	Online survey	518
Study 2a	Online survey	376

Table 17 Indicative Research in airport measuring satisfaction (data collection and sample)

6.1.3 Data analysis

In this quantitative study, the analysis consisted of both descriptive and inferential numerical analysis, as outlined by Creswell (2009). The quantitative analysis will go via a sequence of steps as. Precisely, descriptive statistics are conducted and followed by factor analysis. In a third phase, validity and reliability values are tested and in a final stage the research hypotheses will be examined.

6.1.3.1 Descriptive Statistics

The study will begin with a univariate analysis, which entails summarising instances, their frequency distributions, means, and measures of variability (Babbie, 2007). The

term "arithmetic mean" is a more accurate way to refer to these types of averages, whereas the standard deviation is a more advanced measure of dispersion.

6.1.3.2 Validity and Reliability

Validity and reliability tests are conducted for the instrument, as it contains scales that are categorised under the same latent variables. At first, a set of tests was carried out to evaluate the accuracy and consistency of the concepts. Reliability refers to the consistent measurement of the same value by a scale under identical conditions. Validity, on the other hand, is a metric that assesses the extent to which we are measuring what we truly intend to measure. If a questionnaire assesses a notion that is distinct from the dimension we intend to test, it lacks validity. The Kaiser-Meyer-Olkin test and Barlett test of sphericity were conducted to evaluate the dataset's appropriateness for principal component analysis. KMO assesses the adequacy of the sample size for conducting principal component analysis (Civelek, 2018). Values that exceed 0.7 are regarded as satisfactory. Sampling adequacy tests were conducted, followed by exploratory factor analysis using varimax rotation. Explanatory factor analysis uncovers factors based on the relationships between variables. Explanatory factor analysis allows for the loading of observable variables onto one or more factors.

Specifically, exploratory factor analyses were performed, along with reliability assessments to assess the internal consistency of the scales using the Cronbach alpha statistic (Creswell, 2009). Given that all the assumptions were evaluated using structural equation modelling (SEM), further tests were conducted to assess validity and reliability. Specifically, the initial phase involved testing the measurement model. The measurement model assesses the extent to which the observable variables accurately represent the hidden variables (Civelek, 2018). The primary study conducted was confirmatory factor analysis (CFA), which demonstrated the construct validity of the scales. The confirmatory factor analysis validates the specified factor structure using the current data. Put simply, in confirmatory factor analysis, the component that will be associated with an observed variable is preset (Civelek, 2018). The study included many tests, including average variance extracted (AVE), to assess discriminant validity, composite reliability, and convergent validity.

Discriminant validity refers to the extent to which a particular structure in a measurement model is distinct from other structures (Civelek, 2018). In order to determine the discriminant validity of each dimension, the Average Variance Extracted (AVE) was computed. An acceptable result for the AVE is considered to be equal to or more than 0.50. In order to assess the validity, a CFA reliability analysis was performed for each construct. Values over the threshold of 0.70 imply that the scale is dependable (Civelek, 2018). The composite dependability value quantifies the degree of reliability of the scale for each dimension. Composite reliability values greater than or equal to 0.70 indicate the presence of composite reliability (Civelek, 2018).

Prior to conducting research hypothesis testing, it is necessary for conceptual models to satisfy specified model fit indices in such studies. The differentiation between the constructs was assessed using discriminant validity. Structural equation modelling relies on the confirmatory technique. It relies on statistical validation of the theoretical framework. The measuring approach used in this study is confirmatory factor analysis, as stated by Civelek (2018).

6.1.3.3 Research Hypotheses Tests

Subsequently, the study model was scrutinised using Structural Equation Modelling techniques with SPSS Amos v.21. Structural equation modelling (SEM) is a collection of statistical methods used to estimate the sizes and directions of assumed causal effects in quantitative investigations, regardless of whether they are based on cross-sectional, longitudinal, experimental, or other types of study designs (Kline, 2023).

In order to assess the importance of the path coefficients and loadings, a bootstrapping technique was employed. This involved generating 5000 resamples to evaluate the precision of the predicted values (Civelek, 2018). Once the model fit indicators were addressed, the study hypotheses about direct and moderating effects were explored. The table below provides a list of prominent researchers who have interpreted their findings using this type of analysis.

The research hypotheses being examined in Study 2 by structural equation modelling are as follows:

S_2H_1[8]: There is a positive and significant influence of airport environment on travellers' satisfaction.

S_2H_2: Airport environment has a significant and positive effect on pleasure

S_2H_3: Airport environment has a significant and positive effect on arousal

S_2H_4: Pleasure has a significant and positive effect on satisfaction

S_2H_5: Arousal has a significant and positive effect on satisfaction

S_2H_6: Sense of place moderates the relationship between airport environment and travellers' satisfaction

S_2H_7: Environmental responsiveness moderates the relationship between airport environment and travellers' satisfaction

The analysis in the present research follows the recommended sequence outlined by Kline (2023). The questionnaire is inherently disruptive to the respondent's life, whether it is due to the time required to complete the survey, the potentially sensitive or threatening nature of the questions, or the potential violation of privacy (Cohen et al., 2007). The first page of the questionnaire featured an ethical statement of consent, which informed participants of the confidentiality, anonymity, and non-traceability of their replies, as well as the use of their data for research purposes. This statement provides a description of the study, outlines the voluntary nature of participation, and acknowledges the freedom to refuse participation (Rudestam & Newton, 2015). In addition, they were informed of their entitlement to withdraw at any point or choose not to answer specific questions in the questionnaire.

[8] S_2 stands for Study 2.

6.2 Study 2b: Qualitative Research

6.2.1 Research Instrument

There are four primary forms of interviews: a) informal conversational interviews, b) interviews employing a guide, c) standardised open-ended interviews, and d) closed quantitative interviews. The current thesis employed the interview guide technique, which involved predefining themes and concerns to be handled in advance using an outline format (Cohen et al., 2007). The interviewer determined the order and formulated questions throughout the interview. This sort of interview enhances the comprehensiveness of the data and establishes a more methodical approach to data collecting for each responder. Furthermore, predicting and rectifying any logical inconsistencies in the data is possible. The interviews maintained a very informal and context-based tone (Cohen et al., 2007).

6.2.1.1 Interview Protocol of the qualitative study

The forms of the questions may be either direct or indirect (Cohen et al., 2007). The interview methodology utilised questions with an indirect structure, wherein the interviewee sought the respondents' opinions on certain topics broadly. The indirect technique is believed to be more effective in eliciting candid and honest replies by obscuring the intent of the inquiry. Moreover, the series of inquiries referred to as the funnel follows a progression from broad and vague to increasingly focused and precise.

The interview procedure consists of questions that may be classified into six categories: a) experience questions, b) behaviour questions, c) comparison questions, d) feeling questions, e) sensory questions, and f) demographics questions (Cohen et al., 2007). The research began by introducing the topic, which was then further explored. The interviewer sought further information or requested specific examples based on the respondents' replies.

6.2.2 Sample design and data collection

6.2.2.1 Research Sample, Sampling, and Sample Size

The current study employed *quota sampling* as the particular method of sampling (Cohen et al., 2007). Quota sampling is sometimes referred to be the non-probability counterpart of stratified sampling. Quota sampling aims to accurately reflect important characteristics of larger groups. The primary selection criteria for the respondents were that they had to have travelled during the last two weeks prior to being approached. Moreover, the quotas were mostly determined by their gender, as achieving an equitable distribution was one of the primary objectives. In addition, in order to achieve an equal gender distribution, further quotas were implemented to ensure representation from different geographical regions.

Typically, in ethnographic or qualitative research, the sample size is expected to be modest (Cohen et al., 2007). The sample size may also be limited due to many factors such as financial constraints, time limitations, stress levels, availability of administrative assistance, the number of researchers involved, and available resources (Cohen et al., 2007). Access is a crucial concern and a first component that has to be determined in study. Researchers must guarantee that access is not just permitted but also feasible. Potential sample participants themselves may also refuse access due to practical considerations, such as the limited time available to interact with the researcher.

6.2.2.2 Sample size estimation

The term "sample" is commonly employed in a broader sense and encompasses a range of instances, including informants, organisations, events, and documents. (Rudestam & Newton, 2015). The current study focuses on a sample of international visitors visiting key tourist destinations in the Famagusta district of Cyprus. Data gathering will cease whenever the data reaches a state of saturation in the current scenario.

6.2.3 Analytic procedure

This qualitative study followed the qualitative technique of description and theme text analysis, as outlined by Creswell (2009). Various considerations arise about the method of documenting the interview in real-time. For instance, an audiotape recorder may be inconspicuous but might limit the freedom of the person being recorded. On the other

hand, a videotape may provide more precise information but could be even more restrictive due to its association with surveillance (Cohen et al., 2007). There is a trend to use tape to reduce the temperature of items. Not having any mechanical means of documenting the interview might make it less intimidating. In this instance, the accuracy of the data would depend on the interviewer's recollection. An alternate approach might involve the interviewer taking notes throughout the interview, however this may potentially discourage certain responses. The suggestion is that the interview must consider and prepare for the various non-cognitive aspects involved in everyday behaviour. An ideal interview must match numerous quality requirements, which are outlined below:

- The interview is evaluated based on the extent to which the subject provides spontaneous, rich, specific, and relevant answers
- The quality of the interview improves when the interviewer asks shorter questions and the subject gives longer answers
- The interview is considered successful when the interviewer accurately interprets the subject's responses
- The interviewer attempts to confirm their interpretations of the subject's answers during the interview
- The interview is self-explanatory and does not require much additional description or explanation

Following the analysis, it may be required to make improvements to the coding (Rudestam & Newton, 2015). There is no definitive transcription that may be considered universally right when it comes to analysing (Cohen et al., 2007). Verbal transcriptions sometimes exclude key contextual aspects, which is why non-verbal communication tends to convey more information. Therefore, more information has to be considered, such as:

- Tone of voice
- Emphasis given by the interviewees
- Pauses or interruptions

- Mood of the speaker
- Speed of conversation

After the data have been gathered, the subsequent step is scrutinising the data. The initial steps of the process involve: 1) creating meaningful units of language, 2) organising and classifying these units, 3) constructing narratives to depict the interview material, and 4) analysing the interview data. Coding is the process of categorising question replies and responder information into specified categories for analysis. Given that the questions were preselected, each response could be objectively turned into a score (Cohen et al., 2007).

6.2.3.1 Validity and Reliability

Validity refers to the accuracy of findings in terms of "authenticity and trustworthiness" (Creswell, 2009, p. 177). Qualitative validity refers to the researcher's efforts to ensure the correctness of their results through specific processes, whereas qualitative reliability implies that the researcher's technique remains constant throughout several researchers and projects (Creswell, 2009). Validation is necessary at each of the seven steps of an interview-based study, as stated by Cohen et al. (2007). The research must have a robust theoretical base and a logical connection between the theory and the research topics. Moreover, every element of the study design must be both reliable and thorough. The data must possess accuracy, reliability, and validity, with the implementation of consistency and reliability tests. The conversion of the information from spoken to written form must accurately reflect the essential aspects of the interview context. Data analysis must exhibit strict adherence to the data. Validation processes must be implemented and utilised. The reporting should be impartial and perceived as impartial by readers (Cohen et al., 2007). Some validity strategies are the following:

- Employ triangulation to integrate diverse data sources, thoroughly analysing evidence from each source to construct a cohesive rationale for the underlying themes
- Employ member checking to assess the correctness of the qualitative results by presenting the final report to the participants for their feedback

- Utilise detailed and comprehensive descriptions to effectively communicate the findings
- Engage in peer debriefing to obtain input and insights from colleagues in order to enhance the quality of the research

In order to verify the reliability of the coding process, many coders will be consulted to get a consensus on the coding themes (Creswell, 2009). Three reliability processes include:

- Reviewing transcripts to identify any obvious faults that may have occurred during transcription
- Confirming that there is a noticeable shift in the importance of the codes
- Verify codes generated by different researchers by cross-referencing (Creswell, 2009).

Interviews possess an ethical aspect as they involve interpersonal communication and yield insights into the human condition. Three primary ethical concerns may be identified in this context: a) informed permission, b) secrecy, c) repercussions of the interviews.

7 Findings II

7.1 Study 2a

7.1.1 Sample Description

After verification for completeness and data quality, the final sample size was comprised by 376 participants (n=376). The diminution in sample size was mostly caused by identified data outliers. The demographic characteristics of travellers are shown in Table 18. The sample was fairly evenly split across gender as 53% were female and 47% were male. In terms of age (M= 39), the three largest groups were 30-39 years of age counting a percentage of 41.8%, 18-29 years of age with a percentage of 21% and 40-49 years of age counting a percentage of 13.6%. Nearly all participants had completed high school, with 34% of the individuals holding a bachelor's degree. Participants' annual household income was somewhat uniform across four levels: less than €40,000 counted to 29%, €40,001-€60,000 counted to 26.6%, €60,001-€80,000 counted to 21.8% and more than €80,001 counted to 22.6%. The majority of the participants were European since more than half counted to 85.6% of the final sample. Furthermore, almost all of them visited the host-country for Relaxing purposes (93.1%) with a duration of stay up to one week (73.7%). Speaking of the type of travellers, alternatively the frequency of travel, the majority of the sample were infrequent travellers (62%), moderate travellers follow (26.3%) with the rest of them being frequent travellers (11.7%).

Characteristics	n	Percentage
Gender		
Male	175	47%
Female	201	53%
Age		
18-29	79	21%
30-39	157	41.8%
40-49	51	13.6%
50-59	49	13%
More than 60	40	10.6%
Education		
High School Graduate	80	21.3%
College Graduate (diploma)	69	18.4%
Undergraduate (bachelor's degree)	128	34%
Postgraduate (master's degree)	77	20.5%
Ph.D. (philosophy's degree)	4	1.1%
Other	18	4.8%
Annual Household Income in thousands of euros		
Less than €40,000	109	29%
€40,001 - €60,000	100	26.6%
€60,001- €80,000	82	21.8%
More than €80,001	85	22.6%
Travel Frequency		
1-2 trips in a year	233	62%
3-5 trips in a year	99	26.3%
More than 5 trips in a year	44	11.7%
Total (n) = 376		

Table 18 Sample's Characteristics

7.1.2 Factor Analysis

Prior to examining the relationships between travellers' evaluations of airport, each construct with its corresponding items was subjected to exploratory factor analysis (EFA). EFA was undertaken for two primary purposes: (1) to reduce the potentially superfluous items within each scale and (2) to gain an initial sense of the factor structure for each scale. Generally, it is expected to have at least 300 cases for factor analysis (Tabachnick and Fidell, 2013), with our case exciding that threashold. Both Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and the Barlett's test of sphericity were also requested using IBM SPSS v.21 and prior to EFA. Barlett's test of sphericity should be significant ($p < .50$) for the factor analysis to be considered appropriate (Barlett, 1954; Pallant, 2013). In addition, the KMO index ranges from 0 to 1, with .6 suggested as the minimum value for a good factor analysis (Kaiser, 1974). The commonly used orthogonal approach, the Varimax method, was used to minimise the

number of variables with high loadings on each factor. The next section reflects these results.

7.1.2.1 KMO and Barlett tests

To begin with the construct of Ambience which consisted of five items, the KMO coefficient was 0.84. The scale yielded a significant ($p < 0.001$) Barlett test. These estimates demonstrate it was acceptable to proceed with the EFA. The second construct, layout consisted of 12 items resulting in KMO coefficient 0.86 with significant Barlett's test ($p < 0.001$). Furthermore, the construct of Employees consisted of nine items resulted into KMO value of 0.92, which yielded a significant ($p < 0.001$) Barlett test. The last construct of the airport environment, Safety, comprised of four items with KMO coefficient 0.81 and significant Barlett test ($p < 0.001$). Speaking of emotions, Pleasure and Arousal which included five items each, had KMO coefficients 0.80 and 0.86 respectively. The scales yielded a significant ($p < 0.001$) Barlett test. Satisfaction consisted of three items resulting in KMO coefficient 0.74 with significant Barlett's test ($p < 0.001$). The moderating roles of sense of place and environmental responsiveness comprised five items resulting into KMO coefficients of 0.83 and 0.86 accordingly. The two constructs scored significant Barlett tests ($p < 0.001$).

7.1.2.2 Exploratory Factor Analysis

An EFA (Table 19) was conducted with all 53 items using principal axis factoring extraction with a varimax orthogonal rotation procedure. Items that loaded onto multiple factors (with coefficients in excess of 0.30) or items that did not load onto factors very strongly with coefficients less than 0.50 were removed (i.e., interior decoration, ease of airport layout, ease of airport signs, visible artwork, interesting artwork),. This resulted in 48 items. The first factor, ambience, was composed of five items (M= 5.42, σ=.038). The second construct, layout, included 7 items (M=5.41, σ=.20). To continue with, the construct of employees consisted of 9 items (m = 5.49, σ=.13) while the construct of safety was made up from 4 items (M= 5.86, σ=.08). Emotions were measured from the constructs of Pleasure and arousal, comprised of 5 items each (M= 5.83, σ=.24 and M= 5.56, σ=.38, respectively). Satisfaction as the depended variable consisted of 3 items (M= 5.83, σ=.05). Last but not least, the moderating variables of sense of place and environmental responsiveness had 5 items each (M= 4.11, σ=.42 and M= 5.51, σ=.16,

respectively). In order to determine the reliability of each factor, Cronbach α estimates were assessed. One of the most commonly used indicators of internal consistency is Cronbach's alpha coefficient. Ideally, the coefficient of a scale should be above 0.70 (DeVellis, 2012). In this case, all the constructs met the threshold value with reliabilities being high, more than 0.85. Specifically, as shown in Table 19, Ambience scored Cronbach α of 0.85, layout had a measure of 0.86 and employees 0.94. Additionally, the construct of safety scored Cronbach α of 0.92 while pleasure and arousal 0.92 and 0.90 respectively. Satisfaction had Cronbach α 0.93, sense of place 0.90 and environmental responsiveness 0.90.

7.1.2.3 Confirmatory Factor Analysis

After purifying the scales, confirmatory Factor Analysis (CFA) was undertaken to establish a measurement model. In essence, this served as the first of two steps. Initially, CFA was conducted to establish a measurement model followed by Structural Equation Modelling (SEM) to examine the relationship between the factors. As such. CFA was undertaken using IBM AMOS v.21. The CFA (Table 19) began with the addition of each factor and its corresponding items one after another to develop an ideal model. Though this ideal model had numerous cross-loaders and error covariances specified, the model was trimmed to remove error items to arrive at the final acceptable measurement model. Items were removed from the model if the standardized factor loadings fell below 0.50 (Hair et al., 2010) or if they loaded onto incorrect factors. Using these criteria, 7 items were removed from the CFA: 1 from ambiance; 2 from layout; 3 from employees; and 1 from safety. The final measurement model contained 41 items: ambience concerning 4 items (m = 5.42); layout comprised of 5 items (m = 5.44); employees consisted of 6 items (m = 5.49); safety concerning 4 items (m = 5.88); and pleasure, arousal, satisfaction, sense of place and environmental responsiveness remaining as presented in the previous chapter.

7.1.2.4 Convergent Validity and Reliability

First, the measurement model was tested for convergent validity and reliability. These were assessed through factor loadings, Composite Reliability (CR), and Average Variance Extracted (AVE). Table 19 indicates that all item loadings exceeded the recommended vale of 0.60 (Chin et al., 2008). Composite reliability values, which

depict the degree to which the construct indicators indicate the latent construct, exceeded the recommended value of 0.50 (Hair et al., 2013).

EFA					CFA		
Factor and Corresponding Item	**m**	**SD**	**Factor Loading**	**α**	**Factor Loading**	**AVE**	**CR**
Ambiance	5.42	.038		0.85		0.69	0.86
The temperature within the airport was comfortable	5.43		0.56		-		
The scents of this airport were pleasing	5.40		0.79		0.72		
The music played in this airport was appropriate	5.42		0.86		0.81		
The level of noise at this airport was appropriate	5.48		0.89		0.87		
The colours used in this airport created a pleasant atmosphere	5.38		0.91		0.90		
Layout	5.41	.20		0.86		0.55	0.77
Restrooms and Bathrooms in the airport were kept clean	5.62		0.66		-		
This airport provided comfortable seating	5.29		0.65		0.70		
Layout was properly managed to avoid passenger crowding	5.42		0.73		0.72		
The airport had good availability of restaurants, cafes and bars	5.31		0.71		0.72		
The airport provided good Internet/WiFi connectivity	5.07		0.55		-		
The signs used at the airport were helpful to me	5.58		0.85		0.81		
Clarity of the airport's signs and symbols was adequate	5.59		0.77		0.77		
Employees	5.49	0.13		0.94		0.61	0.85
I was satisfied with the airport's employees ability to help me	5.60		0.87		0.84		
The airport employees behaved in a manner that I found acceptable	5.52		0.90		-		
Airport employees seemed knowledgeable about my questions or concerns	5.46		0.86		-		
The employees gave me a good reason to trust them	5.25		0.88		0.88		
The airport's employees satisfied my needs	5.39		0.92		0.92		
I was satisfied with the way airport employees treated me	5.49		0.86		-		
The Check-in process was efficient	5.61		0.70		0.67		
The self-check in kiosks were appropriately designed	5.41		0.62		0.58		
Check-in Staff was helpful, friendly, and courteous	5.69		0.79		0.73		
Safety	5.86	0.08		0.92		0.81	0.91
The airport I attended complied with the necessary security measures to guarantee the safety of the travellers	5.81		0.82		-		
The airport's security services made me feel safe and secured	5.97		0.90		0.85		
The airport's security was able to conduct the passports controls within an acceptable waiting time	5.85		0.95		0.96		
The airport's security was able to proceed with the luggage and x-ray within an acceptable waiting time	5.81		0.90		0.89		
Pleasure (While at the airport I felt…)	5.83	0.24		0.92		0.70	0.89
Happy	5.74		0.87		0.83		
Bored (R)	6.08		0.86		0.89		

Unsatisfied (R)	6.09		0.86	0.88		
Pleased	5.68		0.87	0.79		
Delighted	5.56		0.86	0.78		
Arousal (While at the airport I felt …)	5.56	0.38		0.90	0.65	0.86
Excited	5.66		0.88	0.84		
Energetic	5.39		0.89	0.84		
Calm (R)	5.25		0.83	0.78		
Nervous (R)	6.18		0.83	0.82		
Aroused/Awake	5.31		0.82	0.77		
Satisfaction	5.83	0.05		0.93	0.81	0.91
I think I made the right decision by using this airport	5.81		0.95	0.95		
My experience expectations have been met by this airport	5.79		0.93	0.90		
I am generally happy with the service provided by this airport	5.89		0.92	0.85		
Sense of Place	4.11	0.42		0.90	0.66	0.86
The airport reflected the national identity of my home country	4.49		0.89	0.88		
The interior as well as the exterior of the airport were designed using the country's distinctive character	3.94		0.89	0.88		
The uniform of customer service's staff was designed using the country's distinctive character	3.46		0.81	0.78		
I could 'feel' my home country while in the airport	4.37		0.79	0.70		
My country's 'flavors' could be sensed almost everywhere in the airport	4.30		0.87	.80		
Environmental Responsiveness	5.51	0.16		0.90	0.65	0.86
I pay attention to the airport's environment	5.57		0.82	0.79		
Things like noise, colours and lighting make a difference to me	5.52		0.91	0.91		
Airport decoration inluences me	5.24		0.78	0.70		
I pay attention to the layout of the airport	5.57		0.85	0.79		
The airport employees' behaviour makes a difference to me	5.67		0.87	0.83		

Note: (R) denotes a reverse scale | EFA = Exploratory Factor Analysis | CFA = Confirmatory Factor Analysis | AVE = Average Variance Extracted | CR[1] = Composite Reliability | (-) denotes item removed. |Cron. **α**

Table 19 Measurement Model and Summary Statistics

The next step was to assess the discriminant validity, which refers to the extent to which the measures are not a reflection of some other variables; this is indicated by low correlations between the measure of interest and the measures of other constructs. Table 20 shows that the square root of the AVE (diagonal values) of each construct is larger than its corresponding correlation coefficients pointing towards adequate discriminant validity (Fornell & Larcker, 1981). Although some of the correlations were over 0.70, the square root of average variance extracted for each construct exceeds the correlations between constructs, hence the result indicates discriminant validity as per the respective literarure(i.e. Prentice and Kadan, 2019).

Constructs	1	2	3	4	5	6	7	8	9
Ambiance	**0.829**								
Layout	.619***	**0.742**							
Employees	.331***	.541***	**0.778**						
Safety	.399***	.640***	.535***	**0.902**					
Pleasure	.756***	.547***	.251***	.351***	**0.837**				
Arousal	.770***	.674***	.379***	.384***	.740***	**0.808**			
Satisfaction	.705***	.641***	.429***	.402***	.640***	.761***	**0.900**		
Sense of Place	.193***	.269***	.193***	.312***	0.068	.110**	.223***	**0.811**	
Environmental Responsiveness	.520***	.590***	.268***	.553***	.420***	.541***	.457***	.105*	**0.807**

Values on the diagonal (bolded) are square root of the AVE while the off-diagonals are correlations.
* p<.05
** p<.01
***p<.001

Table 20 Discriminant Validity

Table 21 reflects and the weights of the first order constructs on the designated second order construct indicating that an airport's physical environment is a second order factor with four significant first order dimensions including ambiance, layout, employees, and safety.

Second-order constructs	First-order constructs	Weight	CR^2
Airport Environment	Ambiance	0.861	*
	Layout	0.797	10.683
	Employees	0.523	8.104
	Safety	0.501	9.340

*Item fixed to set the scale.
Notes: CR^2 = Critical Ratios.
All values were at p<.001 level

Table 21 Weights of the first order constructs on the designated second-order constructs

7.1.3 Structural equation models and hypothesis testing

The hypotheses of the research model were tested with two structural equation path models using IBM AMOS v.21. The first model involved testing H1-H5. Another model tested H6 and H7 which considered the moderating effects of sense of place and environmental responsiveness on satisfaction respectively.

7.1.3.1 Overall model results

The hypothesised relationships in the model were tested simultaneously by using a structural equation model. The proposed model provided an adequate fit to the data, as it yielded $\chi 2/df = 3.36$, with the following fit indices: comparative fit index (CFI) = 0.92; Tucker–Lewis index (TLI) = 0.91; root mean square error of approximation (RMSEA) = 0.07; and standardized root mean square residual (SRMR)= 0.08. According to Browne and Cudeck (1993), a TLI and CFI of at least 0.90, indicates an acceptable incremental fit of the data. Also, a RMSEA and SRMR value below 0.08 are deemed acceptable (Hu and Bentler, 1999).

Within the model, the estimates of the structural coefficients provided the basic tests of the hypothesised relationships (see Table 22). The effects of airport environment on pleasure-feeling and on arousal-feeling were first addressed (Hypothesis 1-Hypothesis 2). The expected relationship between the airport environment and pleasure-feeling (Hypothesis 1) was supported by the positive path coefficient (standardized $\beta = .79$), statistically significant at the $p < .001$ level. Furthermore, the airport environment affected arousal-feeling (standardized $\beta = .88$, $p < .001$), thus supporting Hypothesis 2. Hypothesis 3 proposed that the pleasure-feeling positively affects satisfaction. Hypothesis 4 suggests also that arousal-feeling has a positive effect on satisfaction. The empirical results showed that pleasure-feeling does have a positive affect on satisfaction (standardized $\beta = .20$, $p < .001$), the same as happens with arousal-feeling on satisfaction (standardized $\beta = .65$, $p < .001$). Thus, Hypothesis 4 and Hypothesis 5 were supported. Next, the effect of airport environment on satisfaction (i.e., Hypothesis 5) is also supported (standardized $\beta = .34$, $p < .001$).

7.1.3.2 Moderation model results

This study hypothesised both sense of place and environmental responsiveness would have moderation effects on the relationship between airport environment and satisfaction. To test this moderating effect, airport environment (predictor) with sense of place and environmental responsiveness separately (moderators) were multiplied to create interaction constructs (airport environment x sense of place, airport environment x environmental responsiveness, respectively) to predict passengers' satisfaction. As Table 22 shows, the estimated standardized path coefficients for the effect of sense of place on satisfaction ($\beta = .10$, $p < .001$) and environmental responsiveness on satisfaction ($\beta = .13$, $p < .001$) were significant. This indicates that on the one hand, portraying the cultural identity in international airports moderates the relationship between airport environment and satisfaction. Additionally, passengers' responses towards the airport environment, is also a significant indicator that moderates their satisfaction. Hypothesis 6 and Hypothesis 7 were accepted.

Finally, several demographic-oriented and travel-oriented variables were controlled on passengers' satisfaction. The study demonstrated that passengers' age, annual household income and travel frequency are important determinants of satisfaction. However, both age ($\beta = -.055$, $p = .144$), annual household income ($\beta = .010$, $p = .790$), and travel frequency ($\beta = .035$, $p = .339$) had no significant effect on travellers' satisfaction.

Hypotheses for Study 2 (S2)	**Beta**	**p Value**	**Decision**
H1: Airport Environment → Pleasure	.79	p<.001	Supported
H2: Airport Environment → Arousal	.88	p<.001	Supported
H3: Pleasure → Satisfaction	.19	p<.001	Supported
H4: Arousal → Satisfaction	.65	p<.001	Supported
H5: Airport Environment → Satisfaction	.34	p<.01	Supported
H6: Airport Environment x Sense of Place → Satisfaction	.10	p<.001	Supported
H7: Airport Environment x Environmental Responsiveness → Satisfaction	.13	p<.001	Supported

Notes: Fit statistics: $\chi 2/df = 3.36$; TLI = .91; CFI = .92; RMSEA = .07; SRMR = .08

Table 22. Structural estimates (hypotheses testing)

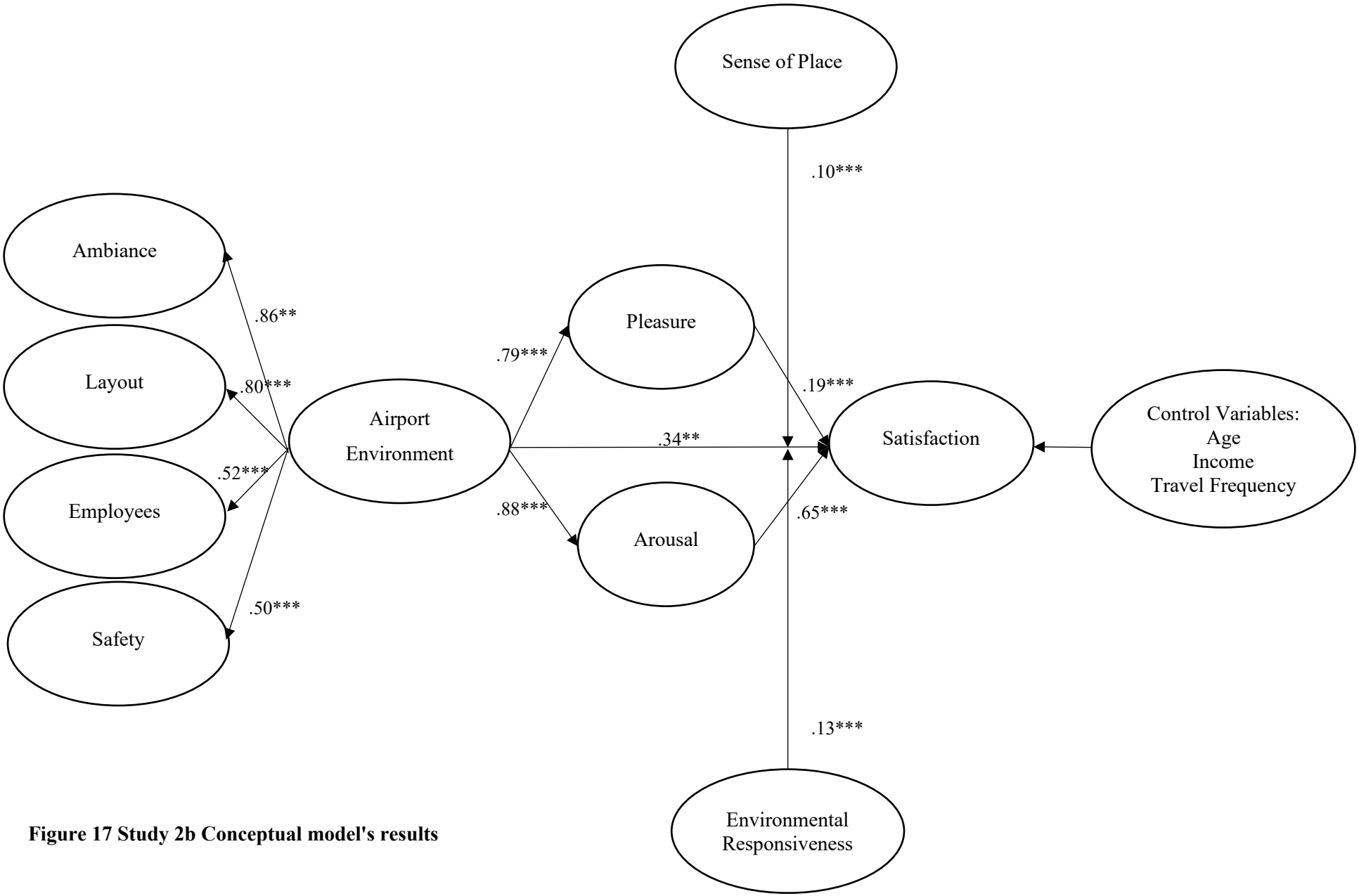

Figure 17 Study 2b Conceptual model's results

7.2 Study 2b: Qualitative Research

This sub-chapter presents the outcomes of the second study's qualitative method via interviews. The study used thematic analysis methodology guided by Strauss's methodological framework to analyse opinion and experience diversity by travellers. The analysis included three independent coding processes, each targeted at revealing underlying themes and patterns. The following sections go into detail about the coding process, explaining the logic and method behind each phase. Interviews were performed from May to October 2023 with international travellers visiting the country of Cyprus. The participants were selected using purposive sampling. The chapter's extensive analysis strives to illustrate the complex dynamics and insights gained from the interviews, thus leading to a better understanding of the research issue.

7.2.1 Sample's characteristics

Study 2 invited 22 respondents who completed the survey to engage in follow-up interviews. The interviews given by the international travellers lasted on average 30 minutes. The principal investigator started each interview with general questions concerning their views about their home country's airport. The interview protocol aimed at examining travellers' deeper evaluations of the airports. Table 23 indicates the airports from which each interviewee travelled.

Participant	Airport	Age range
P1	Birmingham Airport	55-59
P2	Bristol Airport	25-29
P3	Copenhagen Airport, *Kastrup*	35-39
P4	Leeds Airport, *Bradford*	25-29
P5	Liverpool Airport, *John Lennon*	30-34
P6	Tel Aviv Airport, *Ben Gurion*	30-34
P7	Gatwick Airport	30-34
P8	Gatwick Airport	30-34
P9	Debrecen Airport	25-29
P10	Venetia Airport, *Marco Polo*	30-34
P11	Thessaloniki Airport, *Makedonia*	30-34

P12	Cardiff Airport	35-39
P13	Thessaloniki Airport, *Makedonia*	30-34
P14	Dusseldorf Airport	30-34
P15	Manchester Airport	25-29
P16	Budapest Airport, *Ferenc Liszt*	40-44
P17	New York Airport, *John F. Kennedy*	35-39
P18	Luton Airport	30-34
P19	Dusseldorf Airport	45-49
P20	Billund Airport	45-49
P21	Zurich Airport	50-54
P22	Paris Airport, *Charles De Gaulle*	35-39

Table 23 Participants' Airports of reference and age range

7.2.2 Themes and Perspectives

First, the transcripts were read by the researchers separately to maximise analytical integrity and with the aim of identifying key themes (open coding) in a theory-driven manner(Braun & Clarke, 2006). Then, at the second round of coding, the themes were combined and compared to enhance data interpretation objectiveness (axial coding). In this way, the emerged topics were categorized by the researchers into interrelated themes. The latter were subsequently refined thus leading to the creation of sub-categories as per the respective literature (i.e. Goulding, 1999). Finally, a third round of coding was undertaken where the sub-categories were combined with the themes to validate relationships (Strauss & Corbin, 1990). This process resulted in four overarching themes: a) airport environment which encompasses perceptions of the importance of the environment in an airport as well as passenger views, b) feelings that both include the positive and negative emotions felt by travellers, c) sense of place which captured certain items that were perceived by travellers as reflecting the airport's home country national identity, and d) external factors referring to variables evoked from the discussion and were not included in the interview protocol examples of which include airport and flight availability, and costs. Figure 18 illustrates the coding phases and data structure.

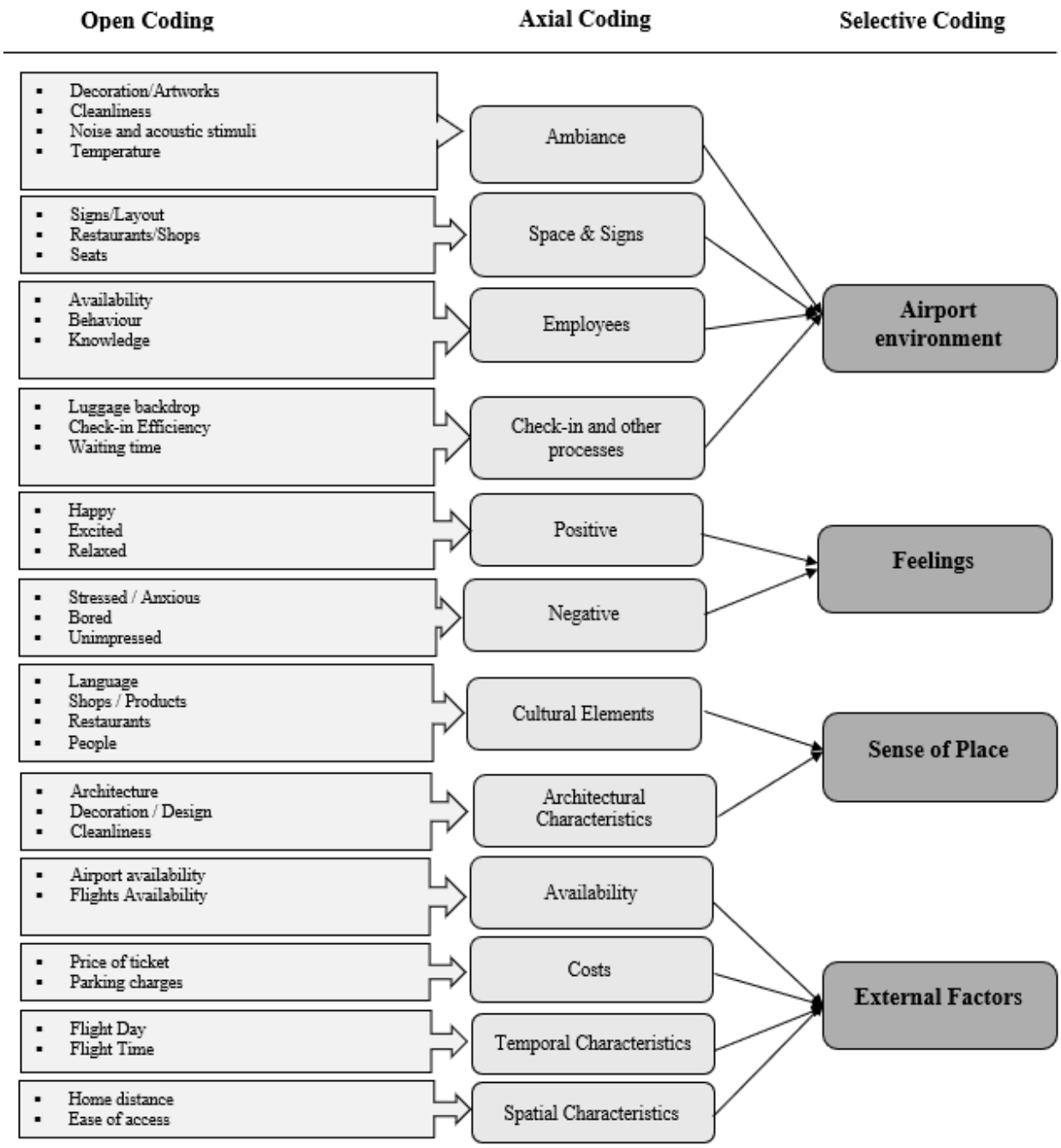

Figure 18 Qualitative Data Structure of Study 2

7.2.3 Airport Environment

7.2.3.1 Decoration and Artwork

Insights gathered from the interviews with travellers emphasised the importance of the airport environment in influencing their experiences. The travellers were first asked to share their home country airport, meaning the airport they travelled from. They were directed to share their views on general airport impressions. Travellers described ambient factors perceived as important, such as decoration, noise, music, and temperature. Starting with decoration, participants seemed to be disappointed with present artwork and decorative stimuli in their home country's airport environment – There was a tendency to expect something more.

Furthermore, some travellers mentioned that even though decorative items and any kind of artwork were absent from the airport servicescape, they are much needed to enhance their moods. Specifically, as discussed by P5 [F, John Lennon Airport, England], there are times where decoration in airports is kind of dull and melancholic, reminding you that you are back to routine. As the traveller completed,

> We are going on holidays and we are happy, but when we come back home and see this decoration, where there is nothing, it is kind of depressing…I would to love to see changes in decoration

Even though some passengers admitted the absence of decorative stimuli, others discussed the heavily loaded environments they came across. Precisely, some passengers described their home country airports' environments' as tiring because of the stimuli overloading. As stated by P17 [M, John F. Kennedy Airport, America],

> The airport environment was so commercialised…you are bombarded with too many ads, shops, you walk there – bam. You turn on the other side, bam… I mean, enough!

Furthermore, airports with almost none decoration and placement of artworks, have received different adjectives, yet associated and characterised as *"crappy, clinical airport"* [P18, F, Luton Airport, England]. On the other hand, there were travellers that noticed the decoration and perceived in a positive way.

> They spent approximately 3 billions to decorate and upgrade the airport, and yes is something we noticed. Especially Terminal 2 was so beautiful, everything was brand new as stated by P15 for the recently refurbished [F, Manchester Airport, England].

Moreover, the decoration style was something noticed along with the colour schemes and minimal designs. As mentioned from P10 [F, Marco Polo Airport, Italy]

> They used some relaxed colour tones, hence there was congruency.

There were a variety of perspectives regarding the decoration that was found in airports. On the one hand, travellers saw that there was a lack of decoration, which resulted in the desire for "something more." On the other hand, visitors appeared to favour aesthetic schemes that were balanced rather than those that had an excessive amount of environmental stimulus.

7.2.3.2 Cleanliness

Travellers frequently discussed the importance of cleanliness, and did so primarily in a negative way when prompted to reflect it on their home country's airports. Cleanliness is strongly correlates with hygiene and as P9 [F, Debrecen Airport, Hungary] elaborated,

> The luggage area and generally the airport was very dirty. I wanted it more tidy and clean.

On the other hand, there was travellers who took is at granted, without a need for mentioning cleanliness. As elaborated by P21 [M, Zurich Airport, Switzerland]

> Of course the airport was clean. How can it not being clean? It reflects Switzerland.

Consistent with this point of view, P9 [F, Debrecen Airport, Hungary] mentioned that comparing his/her airport with Ferenc Liszt (Budapest Airport), the second one was *"much cleaner"* demonstrating that passengers can use past experiences as points of reference when comparing airports.

Cleanliness was highlighted as a point where it was either positively or adversely assessed. It is interesting to note that this aspect of the environment is utilised as a point of comparison, either for the purpose of comparing with other airports that remain competitive or as a point of reference reflecting an entire nation.

7.2.3.3 Noise and acoustic stimuli

In light of noise and acoustic stimuli, different travellers connected it with crowding. Interestingly, there were participants that were talking about both positive noise and negative noise. Those speaking of positive noise, described it as a fact that contributed to their wellbeing and mood for going to holidays.

> You know, when there is some noise, it is a kind of lively mess, a positive noise [P5, F, John Lennon Airport, England].

Consistent with the precise point of time of travel, another traveller expressed his joy for travelling in the morning since it was very quiet, which committed to a relaxing airport environment. Another participant, while speaking about music, remembered the flight announcements that were cancelled in their airports. As the participant discussed, such acoustic stimuli tend to be informative and must be present in an airport environment. For the travellers that were speaking about negative noises, they found it more frustrating if it was morning hours. Precisely, as P20 [F, Billund Airport, Denmark] stated,

> It was 7am, and it was so noisy! And imagine, it was morning.

The discussion for some participants moved further than the noises to the general music rhymes. Even though most of them admitted that they could not notice any music being played background, some others said they wanted to hear something in whole the airport.

> I could hear music in the restaurants area, but I would really prefer to hear it along all the airport areas as P4 [F, Leeds Bradford Airport, England] elaborated.

Acoustic stimuli, which can be implemented in the form of a background noise or music, were addressed by the visitors, who all shared a common goal, which was to create an atmosphere that was pleasant and relaxed.

7.2.3.4 Temperature, Signs and Layout

Discussion pertaining to temperature seemed to be taken into account by travellers as different interviewees kept describing how hot or cold the environments were. Here it is noticed that the ability to easily recall temperature-related experiences reinforces the argument of the constructs importance to experiences. Whether it was too warm or too cold, it was noticed by travellers expressing in some cases dissatisfaction, however their overall environment evaluations were not determined solely by temperature. Specifically, As P15 [F, Manchester Airport, England] elaborated

> It was very warm! Manchester is having a heat wave right now and it seems that it influenced the airport as well. Usually it's cold but in our last experience it was so warm…We were sweating!". Similarly, another traveller described the hot temperature specifying that "Our airport is the best of the best, it is brand new...the temperature was too hot there but it is okay, again this is by far the best [P6, F, Tel Aviv Airport, Israel].

The discussion then moved towards the signage and general layout of the airports. Initially, the size of the airport was one of the attributes that were mostly used by travellers when describing their airport experience. Some of the interviewees, were even comparing their airport with another in other country or city, to underline the importance of the size.

Similarly for the size, P10 [F, Marco Polo Airport, Italy] admitted that *"the airport was so spacious that it made it comfortable as well".* On the other hand, some others identified a big size of the airport as a disadvantage. Precisely, as P8 [F, Gatwick Airport, England] discussed,

> Heathrow is so big that you can easily get lost…Directions cannot be found easily, in a way that I prefer Gatwick which is smaller.

Similarly with this point, another traveller underlined that someone can easily get lost based due to the signs being *"unuseful"* [P13, M, Macedonia Airport, Greece].

Nevertheless, as mentioned by one participant, getting lost highly depends on the airport and the terminal. There are airports where airlines have their own buildings. For instance, if you are travelling with American airlines you go into specific building, and if you travel with British airlines you head to another building. Hence, since airlines have their buildings, you cannot get lost in there.

> Everything is directional and you go where you want…It is not like Larnaka's airport where all airlines are together [P17, M, John F. Kennedy Airport, America].

For Signage there were passengers that could navigate easily, while others faced different difficulties. For those who evaluated the airports' signs unfavourably, they characterised it as

> Confusing in such a point you could not find your gate easily [P17, M, John F. Kennedy Airport, America].

Yet, as discussed by some of the passengers, signs are subject to change since they *"should be designed better"* [P20, F, Billund Airport, Denmark]. Signs need to be clear, not only in terms of directions but also relating to the facilities and amenities provided within an airport. Others admitted that they knew the directions because they got clear and specific instructions on where to go from their travel agents.

> Navigating within the airport was very easy and accessible, as elaborated by P12 [F, Cardiff Airport, Wales].

Layout was also a common variable heard during the discussion with the travellers. Some of the passengers underlined the ease of access while others gave specific descriptions for airports such as *"labyrinth(s)"* [P9, F, Debrecen Airport, Hungary] or *"weird"* [P18, F, Luton Airport, England]. Some positive reviews of the layouts included the shape and the structure of the airports.

> It was like a circle where gates were positioned on your right and left. It is very big as an airport but you do not really feel it as it easy for you to get there, as elaborated by P6 [F, Ben Gurion Airport].

According to the aforementioned discussion, it was emphasised how important it is for the airport environment to have a temperature that is comfortable, meaning that it is

neither too hot nor too cold. Interestingly, the simplicity of navigation is important while selecting airport alternatives. The smaller the airport, the easier it is to travel; therefore, larger airports must enhance its informational signage, escalators, and moving walkways.

7.2.3.5 Seats

During the discussion, travellers expressed their concerns on the availability and comfort of seats. Unsurprisingly, many of them admitted that they were disappointed of the seats concentrating on the limited number available. As P4 [F, Bradford Airport, England] discussed, *"there are never enough seats, and never comfortable".* Similarly, another passenger while communicating his dissatisfaction, he expressed his feeling saying that

> We were standing and we had to wait for a long time…that was so frustrating [P5, F, John Lennon Airport, England].

Few airports got positive reviews with the passengers claiming that

> There were many seats, and not only that, they were comfortable and in different areas [P10, F, Marco Polo Airport, Italy].

Consistent with the seating comfort, when discussion led to restaurants and shops, most of the interviewees were speaking unfavourably. Precisely, in some of the discussion restaurants and shops tend to be limited or closed. Some of the participants explained the limitation of different restaurants and cafes due to the limited airport size. Even the cost of the products and food was mentioned. As one traveller pointed out:

> There were very few restaurants and they were expensive as well. And not only there were few shops, they had three W&H shops. Why that? I do not understand. Make it better. [P18, F, Luton Airport, England].

Regarding the variable of seats, the majority of the individuals who participated, agreed that they were either limited or uncomfortable, which resulted in them experiencing unpleasant emotions. Restaurants and cafes' availability was linked, with travellers developing points upon their limited choices, which resulted in visitors being dissatisfied.

7.2.3.6 Employees behaviour, knowledge and availability

Employees tend to be among the factors that are taken into account from travellers when speaking about the environment. During the interviews, it was found that opinions varied as to this human-related factor in the airports. On the one hand, there were travellers that admitted the friendly and acceptable behaviour of employees. *"The people in there, the airport staff were all very kind"* as described by P9 [Ben Gurion Airport]. Similarly as P12 [F, Cardiff Airport, Wales] expressed *"Generally people working in this airport are very friendly"*.

On the other hand, there were travellers that were disappointed with the human factor in their airports. Precisely, as P11 [F, Macedonia Airport, Greece] elaborated,

> The airport staff was not knowledgeable. They are not aware of of technological advances…you ask them something about your flight and they do not know to respond.

Furthermore, some travellers tended to stand out the employees based on the area of working. For example, they were speaking about the employees working in the security measures, and those working in the check-in area.

> If I had to explain how the airport staff was, it depended on the staff…those working for the security measures were very ok, however, the ckeck-in staff not. They were very rude [P15, F, Manchester Airport, England].

Some others, combined the employees with factors such as crowding, to explain the availability of employees. For instance, as P19 [F, Dusseldorf Airport, Germany] expressed that *"Not only it was crowded, there was not enough personell as well"*. Travellers seem to not only want well informed and friendly staff but also staff that are able and available to offer help.

Employees, which were the human-related variable investigated in the current thesis, were presented and discussed as an important attribute within the airport environment. Either perceived positively or negatively, it directly affected travellers' evaluations. For instance, whether they were positioned as kind and helpful, this yielded positive

emotions. On the other side, whether were described as unhelpful, it directly enhanced negative emotions.

7.2.3.7 Check-in efficiency, Luggage backdrop and waiting times

When the travellers were sharing their views on the importance of the airport environment, procedures like the check-in efficiency and the luggage backdrop along with the waiting time were discussed. Similarly with the previous sub-chapter of employees, opinions differed as well on these features. On the one hand, there were people expressing their positive attitude towards the processes. *"All the processes were working perfect and they were very fast"* [P9, Ben Gurion Airport, Israel]. In the same vein, P7 [F, Gatwick Airport, England] admitted these positive features of his/her home country airport.

> Gatwick is always very efficient…processes are quick, much quicker than Heathrow airport.

For those that were used to see long queues and deal with big waiting times, it was a surprise that processes were moving quicker than usual. Precisely, as P8 [F, Gatwick Airport, England] discussed,

> This time I did not have to wait at all. I was going straight ahead that I got surprised!.

Travellers also admitted that waiting time is one of the factors when they are choosing to travel from specific airports. One respective response was that of P15 [F, Manchester Airport, England] who even though he travelled from Manchester Airport, he admitted that:

> East Midlands Airport is the best. It is not as big with a variety of shops and restaurants, but you are going straight to the check-in process, and then to the gates with almost zero waiting time. It is like a line.

On the other hand, while describing such features, some travellers were getting emotional for their dissatisfaction. For instance, as P1 [M, Birmingham Airport, England] elaborated,

> We flew at 21:30 nighttime and we had to wait so much time…there were very long queues and we had to wait too much time.

At the same time, travellers were connecting the long waiting queues with the airports' processes. As P12 [F, Cardiff Airport, Wales] elaborated on his dissatisfaction:

> Oh, the self check-in kiosks were very slow! We faced so many difficulties at the machines and while the staff had to help us, they were staring at each other…Machines were very slow which resulted to long waiting times.

In the same vein with the check-in, travellers blamed the airlines and airports for letting few people do specific tasks. For example, as P14 [F, Dusseldorf Airport, Germany] admitted

> I had to wait for so long, for one hour at the check-in, and you why? Because there was only one person working at the check-in…Unacceptable!.

As it seems from the discussion, it was usual for travellers to associate the lengthy wait periods with the check-in and luggage backdrop sections. Rarely do they tend to speak for quick processes when describing the check-in processes, underlying the importance of taking measures to fasten such tasks.

7.2.4 Emotions

During the discussion on the airport environment, travellers had been expressing how they were feeling according to the situation. They tended to describe a situation followed by how it made them feel. Such emotions, were divided into two main categories of emotions: positive and negative. The positive feelings were based on excitement and happiness. These were mainly relied on the fact they were travelling from their home country to a destination country, and since the biggest percentage of the travel purpose was relaxing, they were in the mood of holidays.

> I am going on holidays, how can not I be happy? [P19, F, Dusseldorf Airport, Germany].

Similarly, as another traveller discussed

> When I am in the airport I am always happy and excited. It mostly means that I will be going on holidays! [P8, F, Gatwick Airport, England].

Additionally, there were those travellers that based their feelings on the features of the airport. Precisely, as P6 [F, Ben Gurion Airport, Israel] elaborated,

> Our airport is so big, but you do not feel it. They layout is like a circle in the middle and is very easy to get where you want. You feel good and calm.

Employees were also a feature that was taken into account by travellers, since they bear in mind the behaviour. For instance, P17 [M, John F. Kennedy Airport, America] while describing his/her negative feelings while in the home country airport, he admitted that

> In contrast, here in Cyprus in the security measures when the policeman checked my passport and was okay, he smiled so politely and that changed my whole mood.

On the other hand, negative feelings engaged those of anxiety and stress, mostly caused by specific features such as crowding and layout. An example of that was when P3 [F, Copenhagen Airport, Denmark] said that

> It was so crowded in the airport, that this really caused me stress.

In the same time, other human factors rather than the crowding in the airport, also caused negative feelings on some passengers.

> I don't like airports, everyone is in a rush, in a hurry which directly or indirectly causes me stress, as described by P14 [F, Dusseldorf Airport, Germany].

Another human-related factor was the employees behaviour. As P18 [F, Luton Airport, England] described,

> People working there were so rude with us…it got us frustrated.

Furthermore, there were travellers that had negative feelings which were not resulted from the airports per se, but on personal reasons such as fear of airplanes. For example, P7 [F, Gatwick Airport, England] said that

> When I am getting in the airports, any airport, I am generally kind of stressed. I feel anxious for the flight.

Insights here highlight an important challenge pertaining to the measurement of evoked emotions that are strictly attributed to airport environments. The purpose of travel, for example for tourism, is more often linked to excitement of what is to follow and less often linked to available service options in the airport area.

7.2.5 Sense of place

Following the discussion of the feelings, the concept of sense of place otherwise national identity was discussed with the participants. This construct was divided into two main dimensions, that of cultural elements and architectural characteristics. Starting with the cultural elements, this field engaged factors such as the language, shops or products, restaurants and cafes and people. Precisely, when the travellers were asked about what they can distinct in the airport in terms of sense of place, language and the people were among the most common answers.

> You can feel the Israeli vibe…the welcoming character of the people in the airport, the togetherness and the family you feel in there [P6, F, Ben Gurion Airport, Israel].

Similarly, another participant described that

> You could feel the nationality and the country you were in the airport just from the people in there [P9, F, Debrecen Airport, Hungary].

Moreover, as some travellers discussed they could see their country from the people working there. As P1 [M, Birmingham Airport, England] described

> I could see United Kingdom in the airport, because of the uniforms and the people.

Language was another factor explained during the interviews, as the language spoken and the language presented in the different signs and decorations, made the travellers feel the airport's home country. For instance,

> Of course you could feel you were in Wales…the Welsh culture…you could see all the signs and information firstly in the Welsh language and then in English, as P12 [F, Cardiff Airport, Wales] elaborated.

In the same vein, P2 [F, Bristol Airport, England] expressed that

> You could feel you were in UK only because of the language. There were so many British signs.

In the discussion, restaurants and shops seemed to be aware from most of the travellers. Specifically, many admitted that either specific brands of shops and restaurants were the signal that reflected the home country of the airport.

> Of course you could feel the country…from the luxury brands, famous restaurants…big clothing brands [P22, M, Charles De Gaulle Airport, France].

Similarly, P20 [F, Billund Airport], explained *"that was clear. Food brands and shops were Danish".* Some others explained that you could feel the country you were in only from specific areas of the airprot. As P16 [F, Ferenc Liszt Airport, Hungary] elaborated, *"this could be felt only from the duty free area where there were different national products"*. The duty free area was also discussed by another traveller who said that

> You could see that in the duty free area. It was designed in a British way! You could traditional shops, restaurants and pops in the environment [P15, F, Manchester Airport, England].

As some tavellers explained, even though you could feel the country's culture and identity from the dining areas in the airports environments, in terms of artworks and decorations more action was needed from the practitioners.

> The setup of bars, food restaurants were so British…there was not any artwork or decoration in there to reflect our home country, which definitely is much needed [P4, F, Leeds Bradford Airport, England].

Hence, at this point, the importance of decoration and design features was emerged. It seems that visitors have a tendency to differentiate between airports that have visual cues that remind them of a native country. It is more important to note the pleasant and stimulating feelings they have when discussing such characteristics or when referring to

other airports, which is why they express the necessity of implementing similar techniques at the airports of their home country.

Moving on with second subconstruct of architectural characteristics, travellers admitted that they could feel or wanted to feel the home country of their airport based on more factors. These factors engage items such as the general architecture, the decoration and design, the artworks and pictures and even cleanliness. As mentioned in the previous paragraph, some travellers admitted that they wanted to see more decoration to get a sense of place, a sense of the country. Opinions mostly relied on the subconstructs of decoration/design and artworks. Most of the travellers expressed their dissatisfaction with their airports' decoration. For instance, as a traveller discussed,

> I wouldn't say you feel like you are in UK. The airport is very plain, there is no decoration. It is like a white box…When I came to Cyprus I could see big labels and pictures showing Cyprus, different artworks on the windows and so on, and I really felt I came somewhere else, I came for holidays [P5, F, John Lennon Airport, England].

Similarly, as another traveller elaborated,

> Our airport is just an international airport which I do not like. Every process, every different place in the airport worked badly for me...not a single decoration or artwork. I will not forget my experience in Nadi Airport in Fiji. The whole atmosphere was so impressive, when we arrived they started singing to us people from there, windows were so big to see outside, the nature the ocean…I faced the most beautiful airport experience ever! [P17, M, John F. Kennedy Airport, America].

When speaking for decoration and its features, and as shown from the aforementioned discussion, travellers tended to reminisce their memories on other airports they visited that made an impression on them. As P10 [F, Marco Polo Airport, Italy] admitted

> You could say you could be in any country to be honest. I wanted to see a more Italian decoration, even an art or photograph exhibition as we can see in other airports.

Cleanliness, was also a feature described when speaking about sense of place. Such feature, mostly from people coming from specific countries that are known for their hygienic. Likewise, as P21 [M, Zurich Airport, Switzerland] described

> How can't you feel the country in the airport? First of all the Switzerland is very clean, which you can see it in the airport as well.

Similarly, as another participant elaborated

> It represented fully my country…the cleanliness is the first of all [P3, F, Copenhagen Airport, Denmark].

The cleanliness of the airports was also elaborated by participants who visited other airports rather than their home country, and cleanliness was among the features that presupposed them of what they were going to see the country, or actually reflected the country. For instance, as P11 [F, Macedonia Airport, Greece] admitted

> I will not forget when I went to Sweden. It is an airport that presupposes you of what you are going to see in the country. It was so clean which helps you getting the idea of how the country actually is.

This point of reference strongly matches the quote of Prentice and Kadan (2019, p.40) in their research, which described airports as destinations' "ambassadors".

7.2.6 External factors

7.2.6.1 Airport and flight availability

While travellers were being interviewed, different factors were discussed that were not in the interview protocol and have been named as *external factors.* Initially, one of them was availability, which has been split into airport availability and flight availability. Related to the airport availability, different passengers while describing and expressing themselves upon their home country airport, they were pointing that in their city or area, there are limited options of airports. Precisely, as P13 [M, Macedonias Airport, Greece] described

> In our city, this airport it is the only option of airport we have…all the others are far away.

Similarly, another passenger discussed the fact the he/she tends to prefer the airport according to its closing and opening seasons.

> There is another airport in our city but you know, only some periods is open…now that we are speaking it is open, but we preferred this one since we fly mostly from this one [P6, F, Ben Gurion Airport, Israel].

As per the flight availability, some of them emerged the issues of not available flights from specific airports thereby raising the need of travelling to another airport. As P13 [M, Macedonias Airport, Greece] elaborated, *"they are never enough flights neither availability of destinations"*.

Direct flights was another issue emerged since some travellers tend to prefer flying directly to destinations rather than having to stop to other countries for connecting flights. As P14 [F, Dusseldorf Airport, Germany] described,

> From this airport you can go directly to different countries compared to other airports.

7.2.6.2 Costs

Another issue raised was under the sub-construct of costs. Prices and charges were some of the issues travellers had been discussing often. Costs can be divided into flight/ticket cost and parking charges.

> If I could choose to to fly between Bristol Airport and Birmingham, definitely I would choose Birmingham to save parking costs, as P2 [F, Bristol Airport, England] elaborated.

Similarly, as per the flight costs, Birmingham airport seemed to be also avoided due to the increased ticket charges. As P5 [F, John Lennon Airport, England] elaborated

> Even though I am from Birmingham, I travelled from John Lennon Airport because flight tickers were much cheaper.

7.2.6.3 Temporal Characteristics

Temporal Characteristics included the flight day and flight time issues. Even though previously travellers had been elaborating on the availability of airports and flights, they also seemed sceptical about the flight times and days.

> I had two options for flying, one from Koln Airport and one from Dusseldorf, but I chose the second one since sinch the flight times were much better [P19, F, Dusseldorf Airport, Germany].

Meanwhile, travellers expressed their dissatisfaction on the combination of both the flight availability and also the flight cost. As P11 [F, Macedonia Airport, Greece] discussed

> On the one hand there are very few flight destinations and on the other hand they are very expensive.

Similarly, the flight time as an important driver for airport choice was also discussed by P2 [F, Bristol Airport, England] who said

> We can do fly from Birmingham Airport as well, but there was no better flight time than in Bristol Airport.

Furthermore, the days of the flights have had an influential role on the airport choice. Further to the time, travellers were found to have preferences on the days as well.

> Well, the flight days were better, that's why we chose it, as expressed from P7 [F, Gatwick Airport, England].

7.2.6.4 Spatial Characteristics

Last but not least, the temporal characteristics are another external factor emerged from the interviews from the travellers. Temporal characteristics are all those information under the umbrella of home distance and ease of access. Precisely, as P16 [F, Liszt Ferenc Airport, Hungary] mentioned

> I travel from the airport that is closer to me…What is close to me, I go.

Similarly, as P15 [F, Manchester Airport, England] discussed,

> Manchester Airport is just 10 minutes from my home, why to choose to travel from another one?.

Through qualitative data, researchers are able to gain a more profound understanding of the cognitive processes that travellers engage in, in addition to the physical and human-related characteristics that are investigated. The scope of these talks extends beyond the limits of the airport environment, bringing to light the significance of aspects like as the prices of airline tickets, the number of flights that are available at particular airports, and even the accessibility of airports themselves. When selecting and evaluating an airport, travellers do not rely just on environmental characteristics; rather, they take into consideration a wider variety of criteria, such as those described above, which also play a role in shaping their decision-making process.

The results from both phases of data collecting indicate a clear alignment between the qualitative and quantitative data. The travellers provided detailed explanations for each environmental stimuli they responded to in the questionnaire. Figure 19 depicts the integration of the suggested conceptual model.

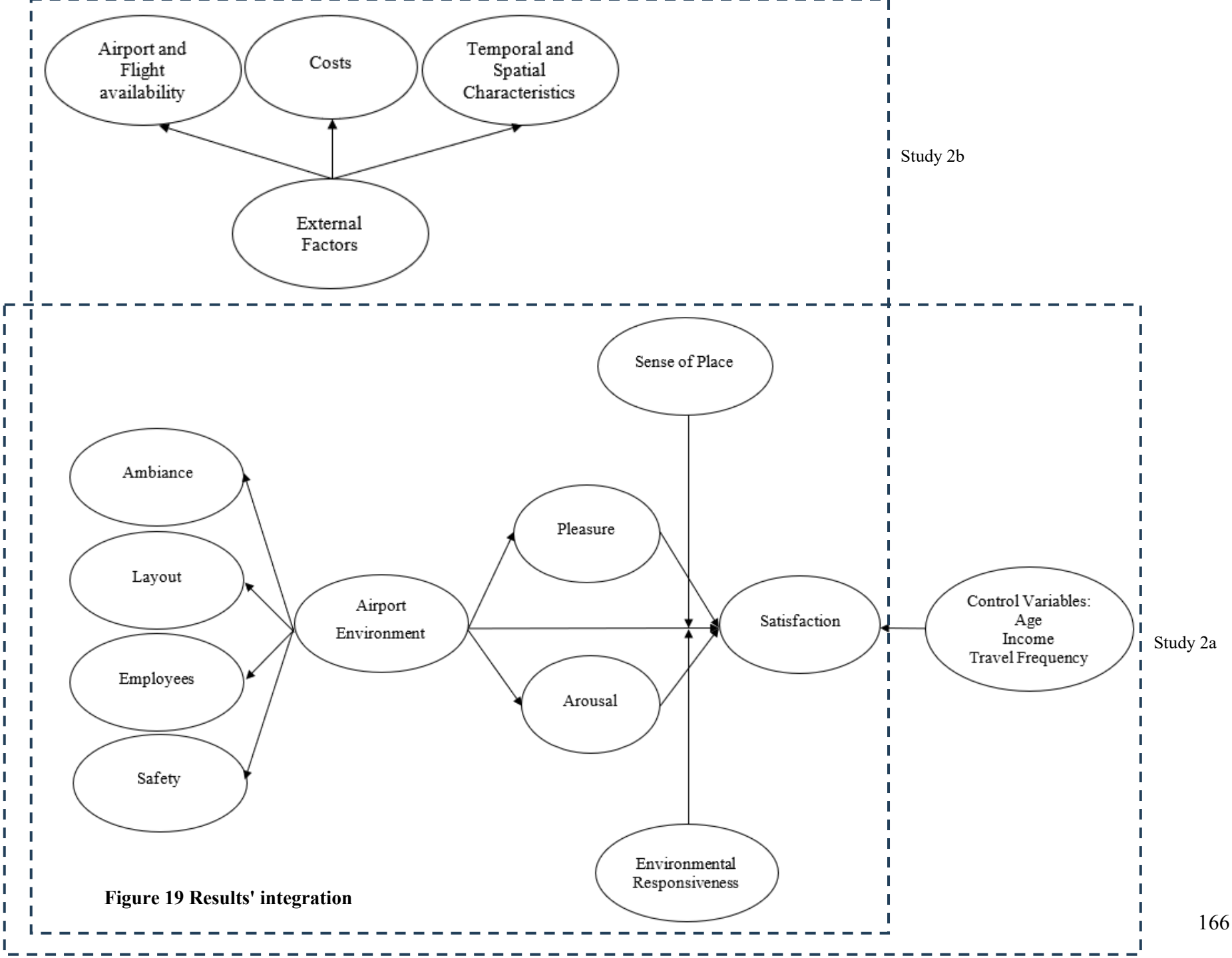

Figure 19 Results' integration

8 Discussion and Conclusions

8.1 Study 1 Discussion

Study 1 embraces the approach of environmental psychology, according to which environmental stimuli are perceived and affect the individual in terms of the image of the airport. At the same time, it argues that sense of place is an important moderator in the above relationship.

This particular research contributes to the existing research activity on the relationship between environment and image formation. Although the influence of the environment on the image is evident, the research gap concerning the area of airports is covered (Nghiêm-Phú & Suter, 2018). The results of Study 1 confirm important studies in the field of marketing and travel, according to which ambiance, signs, and cleanliness play a decisive role in image formation (Batouei et al., 2020; Lee et al., 2017). It is important to mention that the airport environmental variables were examined both separately and as a higher-order construct. Interestingly, both as isolated measurements and holistically, it is clear from the results of the research that the more positively the environment of the airport is evaluated, the more positive is the image of travellers to the airport. These findings answer RQ_1 by showing the airport environmental influence on travellers' formation of airport image. Environmental factors related to ambiance, signs, and cleanliness seem to positively influence airport image formation, with signs demonstrating the most decisive influence. Overall, these results demonstrate the fundamental role of the airport environment, confirming the considerable amount of research work on the influence of the environment in spaces such as retail and restaurants (eg. Ha & Jang, 2012; Roux et al., 2020; Vilnai-Yavetz et al., 2021).

The existing specific literature on sense of place focuses on the influence of this moderator on travellers' satisfaction, with this research being one of the only papers that included in their research design the influence of sense of place on airport image formation. In this case, sense of place partially reduces the direct impact of the airport environment on the airport image. In other words, while the environment is still important, the image of the airport also comes from additional factors such as the sense of place. Hence, the precise finding covers RQ_2 by indicating how sense of place moderates the relationship between airport environment and image. Study 1 of the

doctoral thesis offers an alternative interpretation to research papers applying the SOR model. Typically, research highlights the direct influence of environmental factors on individuals' evaluations. The present research findings show that sense of place plays a moderating role in the relationship between environment and image, thus extending the direct influences as supported by the SOR paradigm.

Based on the focus group's findings, sense of place has been found as a keen term for airport executives who highlighted its importance and mentioned strategies for achieving authenticity in their airport environment. Even though they indicated that they do not frequently track travellers' evaluations, they offered new avenues of measuring the sense of place in travel servicescapes.

8.2 Study 2 Discussion

Consistent with Study 1, Study 2 supports the fundamental aspects of environmental psychology, specifically examining the stimuli of the environment that are perceived and affect the individual while supporting that both the emotional reaction and the satisfaction of the visitors are results of the evaluations of stimuli in the airport environment (Donovan et al., 1994; Proshansky et al., 1970). In particular, the results of Study 2 show that the combination of physical and human variables contributes to the holistic assessment of the airport environment, which can significantly predict the emotions and satisfaction of travellers.

In contrast to the classical S-O-R model, which adopts a linear correlation of factors (stimulus-organism-response), moderators are not used to explain the importance of correlation between variables. Therefore, the model of the second study of the doctoral thesis, beyond the relationship of the environment with emotions and satisfaction, allows the investigation of moderating factors such as sense of place and the environmental responsiveness. In this way a fuller understanding of the airport experience is gained.

This research confirms studies (e.g., Ryu & Park, 2019) that indicate the influence of the airport environment as a higher-order construct on travellers' emotions. At the same time, the role of emotions is underlined, recognising how they contribute to their overall satisfaction with the airport. The significant influence of the airport environment is highlighted by its association with travellers' satisfaction, a positive relationship which

is also evident from previous studies (eg. Mainardes et al., 2021). Using moderating factors avoids the loss of important information about the environment-satisfaction relationship. Specifically, the focus and examination of the sense of place as well as the environmental responsiveness demonstrated their significant influence on travellers' evaluations.

Study 2 of the thesis showed that when the visitor positively evaluates the holistic environment of the airport, significant feelings of pleasure and arousal are stimulated, answering RQ_1. An important finding is also that the more positive the feelings about pleasure and arousal, the more positive the satisfaction of individuals. The above conclusion emphasises the critical role of emotions, which seem more positive, predisposing individuals to induce more positive satisfaction evaluations towards the airport. At the same time, the positive evaluation of the environment of an airport leads to significant and positive satisfaction levels of travellers towards the airport, hence covering RQ_1. In the relationship between environment and satisfaction, important moderators are the sense of place and environmental responsiveness. In this case, both sense of place and environmental responsiveness partially moderate the direct effect of the airport environment on traveller satisfaction. In other words, while the environment is still important, their satisfaction also comes from additional factors such as sense of place and environmental responsiveness. These findings answer RQ_2 by showing how the moderating variables of sense of place and environmental responsiveness moderate the relationship between airport environment and travellers' satisfaction.

Meanwhile, through the qualitative phase of Study 2, the interviewees (i.e. international travellers) expressed different factors that they consider while evaluating their airport journey. Costs, flight availabilities, and accessibility issues are some of the issues that are evaluated when assessing airport experiences. Therefore, this finding answers RQ_3 by showing the impact of external variables on travellers' evaluations.

8.3 Overall Discussion

The above discussion confirms the basic assumptions but prominent research that airport environments are important determinants of travellers' experiences. The research samples of the two primary studies were tested in both cases at different airports. The proposed models demonstrated a good fit in both studies, with the above results

demonstrating that the significant relationship of airport environmental elements with emotions, satisfaction, and airport image remains stable.

Regarding the moderators, it is revealed that both travellers' satisfaction and the airport image they form, are multidimensional constructs and are influenced by environmental factors (ambiance, signs, layout, employees) and intangible factors (emotions, environmental responsiveness). The findings where the sense of place and the environmental responsiveness weakened the effect of the environment, suggest that travellers' satisfaction and airport image do not only result from the environmental aspects of a context.

It is evident from the quantitative and qualitative findings that authentic airport settings can inspire positive emotions by providing a deep immersion in the local culture, history, or decoration, allowing travellers to feel a connection to the destination. Local cuisine and unique art installations, like mosaics, can serve as authentic elements. Such environmental stimuli can foster memorable experiences that connect the destination with its genuine representation in the airport. Airports can evolve from simple transit points into destination extensions, enriching the entire travel experience.

Economic incentives drive airport authorities and stakeholders to improve airport environments. Enhancing the environment, such as improving functionality, ambiance, and location-reminding stimuli, can yield significant financial payouts. Airport renovations can boost travellers' loyalty and revisit. Stakeholders can prioritise environmental improvements with quantifiable economic outcomes to balance costs and benefits and maintain value for travellers and operators.

8.4 Theoretical Implications

This PhD thesis addresses the research calls made by academics (eg. Tubillejas-Andrés, Cervera-Taulet, & Calderón García, 2020) for a deeper understanding of the airport environment and its impact on travellers. Precisely, it addresses significant gaps identified in Chapter 1. The airport environment is analysed both in isolation and as part of a comprehensive framework, thereby enhancing the tourism and marketing literature (Moon et al., 2017). This study posits that the airport experience is influenced by both tangible and intangible aspects of the airport environment. Both physical and human-related variables contribute to shaping experience. The airport setting can significantly

influence how visitors perceive and evaluate an airport, impacting perceptions of the airport's corporate image (Study 1) and satisfaction levels (Study 2). Apart from these assessments, individuals commonly rely on two crucial factors when assessing an airport environment. Namely the sense of place and environmental responsiveness, which have been found to have a statistically significant impact on the connection between the airport environment and image, as well as the relationship between the airport environment and satisfaction, as indicated by the thesis findings.

The doctoral research findings provide empirical evidence of certain significant variables in the airport environment that foster favourable assessments by travellers. The thesis advances beyond the basic connection between the environment and evaluations by incorporating supplementary factors, such as national, emotional, and personal characteristics primarily through the embedded qualitative investigations. It establishes that several factors encountered in the airport setting, including the ambiance, signage, and layout, directly impact the emotions experienced by travellers, thereby influencing their satisfaction with the airport. Therefore, based on travellers' experiences, the airport environment influences the evaluations made by travellers. Consequently, the current doctorate investigation validates the assertions of Tuchen, Arora, & Blessing (2020) and Kim, Chua, Lee, Boo, & Han, (2016) regarding the crucial influence of environmental factors, encompassing both physical and human aspects, on travellers' experiences and evaluations. Furthermore, the results align with the research conducted by Park & Park (2018) which is among the few efforts made to establish a connection between the airport setting and the emotional state of travellers.

Research increasingly considers individuals' emotional responses as a significant mediating factor in the experience journey. This thesis underscores the significance of emotions, thereby providing additional rationale for the literature and industry to explore the role of environments (Kim et al., 2016). Elicited emotions in airport environments determine travellers' satisfaction, encompassing both feelings of pleasure and arousal. This thesis examined the variables "sense of place" and "environmental responsiveness" as moderators in the linear relationship between the airport environment and travellers' evaluations. Even though sense of place has been studied in few studies based on airport environments, it was examined as per its influence on specific emotion, passenger delight (Ali et al., 2016; Ariffin & Yahaya, 2013).

Furthermore, other studies positioned it as an independent variable towards satisfaction, where its insignificant influence was underlined (Batouei et al., 2020).

The current doctoral thesis tackles the latter gap, and findings support the suggestions made by Ali et al. (2016) and Ariffin and Yahaya (2015) to conduct future research on this topic. Investigating the relationship between sense of place and authenticity in airport servicescapes is becoming increasingly important. This is because both of these notions play a vital role in the process of providing travellers with experiences that are both meaningful and memorable. The notion of placelessness (Rowley & Slack, 1999) is intrinsically connected to the significance of authenticity. Incorporating authentic elements, including sculptures and events, is a significant moderator in the servicescape of an airport. This variable is associated with practitioners' short- and long-term objectives, specifically regarding corporate (airport) image and traveller satisfaction. The relationship between environmental and environment satisfaction has been demonstrated through the current study. The concept of authenticity is reinforced by evaluating its impact not only on the destination itself, but also on the intermediary process of travelling towards it and as a component of the travel servicescape. This is accomplished by highlighting the significance of measuring sense of place and authenticity and expanding its scope.

Additionally, to the best of the author's knowledge, the concept of environmental responsiveness has only been studied in retail settings, making this the first examination of its application in the context of airports.This thesis explores new connections between the sense of place and environmental responsiveness in airport servicescapes. Researchers can apply the proposed conceptual models in servicescapes, including hotels and museums, for empirical testing. Practitioners can leverage the findings of the thesis to modify their servicescapes accordingly.

A noteworthy alteration was introduced in the traditional S-O-R model by incorporating the human element as well as moderating variables within the environment. Typically, the S-O-R model describes a linear relationship between the stimulus, organism and response. In the current study, the environmental stimuli are physical and human-related (i.e., airport employees and staff). Additionally, it incorporates moderators such as the sense of place and environmental responsiveness. This emphasises the benefits of studying integrated environmental stimuli by considering moderators. The research

indicates that airports will see significant advantages by including positive emotions, particularly those that are arousing. Both pleasurable emotions and arousing emotions are associated with substantial positive satisfaction among travellers at the airport. The expression of these feelings is accomplished by carefully designing the atmosphere of an airport. The doctoral research findings indicate that travellers can build a favourable image and experience evaluations when they highly evaluate environmental factors such as ambiance, signs and layout, cleanliness, employees, and safety. Moreover, when travellers appraise the sense of place favourably conveyed by the airport servicescape, and when a strong focus accompanies this on environmental responsiveness, they tend to experience higher levels of satisfaction and develop a favourable image of the airport.

Stimuli like ambiance play a crucial part in defining the overall image of an airport and significantly impacting the level of satisfaction experienced by travellers. Signage and layout serve as equally significant factors in influencing the airport's image by travellers and their level of satisfaction, where it positively influenced airport image and satisfaction levels. The level of cleanliness at airports was found to have a notable influence on the perception and image of the airport. Both the human element like airport employees and factors pertaining to traveller safety play a significant role in determining travellers' emotions. The more favourable the evaluations of airport employees and perceived safety, the more favourable their pleasant and arousing emotions were. Considering that the assessments made by travellers about the formation of their image and their level of satisfaction are predominantly influenced by the airport environment, it is evident that this aspect requires particular attention in the airport setting.

8.5 Managerial Implications

This study's findings provide essential insights for airport authorities, destination managers, and marketing experts, highlighting the significant impact of airport settings on travellers' experiences and evaluations. To augment travellers' satisfaction, elevate the airports' image, and favourably impact emotional responses, practitioners and authorities need to consider essential approaches.

This thesis expands upon the limited research conducted in airport environments and their significant impacts (Prentice & Kadan, 2019). The results can assist destination

and airport managers in the design of travel servicescapes. Destination managers can assess each environmental construct (e.g., ambiance, signage, airport staff) to determine how it can represent the destination country. Artworks that represent significant landscapes of a country serve as pertinent examples. Destination authorities along with tourism organisations can invest in the following strategies:

a) Destination Branding: Creating a seamless transition between the airport and the larger destination can be accomplished by incorporating local art, music, or architectural influences into the design of the airport. Upon arrival at the destination, the airport transforms into a memorable and welcoming entrance. Every representation can also signify a particular season and highlight available attractions and landmarks within the country. During the Christmas period, there can be unique representations from villages in Cyprus that serve as a significant attraction. During the autumn season, wines that are also a part of the island for this time can be portrayed. This approach allows for a country to be distinguished and its reputation enhanced.

b) Storytelling: Collaborations between tourism organisations and airport management can employ sense-of-place results to develop mini-museums or exhibits that teach travellers about the history and culture of the location, which may increase the travellers' interest in staying for longer periods or returning to the destination. It is possible to designate specific areas in which young women can embroider their works and express, via their artistic expression, a portion of the history of Cyprus. In this manner, it will also be possible to draw attention to particular regions of the island where this occupation is most noticeable.

Meanwhile, airport managers can assess each stimulus and make adjustments based on qualitative findings to improve favourable evaluations from travellers. Clear navigation signs have to be ensured. It is evident that the airports' environmental features significantly influence both traveller satisfaction and the airport's image. Airport authorities may strategically invest in the airport environment, particularly in:

a) Ambient factors (eg. decoration, artworks, temperature): The ambient stimuli are considered by travellers, prompting airport administrators to employ caution in their selection and arrangement to prevent visitor discomfort. For instance,

earthy and/or warm hues might be employed to evoke a "warm" ambiance, and the temperature must be calibrated to avoid discomfort.

b) Signs and layout (eg. directional signs, seats): Airport authorities might utilise the empirical findings of the Doctoral thesis to enhance directional signage, thereby minimising traveller confusion and facilitating seamless flow. The availability of chairs is highlighted, indicating a need for improvement at the airports.

c) Human factors (e.g., airport employees, check-in staff): Despite minimal research on this aspect, the human element of airports has been emphasised as a significant role in travellers' experience. Consequently, airport administrators need to recruit and educate their personnel on their behaviour and flight-related information, enhancing travellers' overall experience.

Airport environmental stimuli generally influence travellers' comfort and stress levels, particularly during long waits. Furthermore, positive interactions with airport staff are crucial for creating a seamless travel experience.

A key finding of the current research pertains to the domain of emotions. The World Health Organisation (WHO) has underscored the significance of emotions in recent data (WHO, 2022). Consequently, as the findings indicate that emotions (pleasing and arousing) are shaped by the environment and impact satisfaction, airport authorities should consider environmental stimuli to enhance traveller evaluations and improve their well-being. The airport environment exemplified its significance in eliciting emotions; hence, managers are urged to strategically analyse the environmental stimuli, both individually and collectively.

Significant results of the doctoral thesis are the moderators of sense of place and environmental responsiveness. The results clearly indicate the following:

a) Sense of place and authenticity (eg. architecture, authentic elements): Sense of place and authenticity have been demonstrated to be a statistically significant determinant of both traveller satisfaction and airport image. This outcome pertains to both airport authorities and destination managers. The airport can be enhanced beyond its operational capacity. The environment needs to mirror the country in which it is situated, with airport authorities spending in enhancements such as: adornments of the airport with sculptures, colours, and artworks that represent the nation. Qualitative findings of Study 2 clearly indicate the cleanliness characteristic of a country, such as Switzerland. Points of contact with a country and various authentic elements may be incorporated, encompassing exhibitions or live events such as traditional music performances or local culinary tastings. This approach facilitates a distinct authentic experience while simultaneously benefiting the destination.

b) Environmental Responsiveness: The survey results indicated that travellers consider multiple environmental factors. This moderating variable indicates that, in addition to the airport-satisfaction relationship, travellers are individuals who perceive, assess, and regard aspects of the airport environment.

Alongside the research hypotheses of the doctoral thesis, Study 2b, conducted through interviews with travellers, highlighted factors considered in the evaluation of an airport. Visitors typically monitor variables such as pricing, operating hours, and airport accessibility. This matter pertains to both the airport authorities and the nation/state. Consequently, considering the current outcome, each airport can utilise this statistic to monitor how visitors assess elements such as pricing, duration, and distances. Thus, they can determine their pricing, offers, and itineraries.

Furthermore, Study 1 b's focus group results revealed a notable disregard for travellers' evaluations. Consequently, to facilitate continuous enhancement, airport administrators should implement systems for gathering and evaluating passenger feedback regarding the airport environment's physical and emotional dimensions. Consistently assessing satisfaction levels and administering surveys, enables managers to pinpoint areas for enhancement and execute focused actions that correspond with travellers' changing

expectations.

By focussing on these critical aspects, airport managers may markedly enhance travellers' overall satisfaction, foster pleasant emotional experiences, and enhance the airport's corporate reputation. In a very competitive global travel sector, such improvements distinguish airports and boost the destination's image. Marketing initiatives centred on destination authenticity, exhibitions, and airport promotional materials can enhance excitement and reinforce a positive destination image. Airport management must collaborate closely with destination boards, local authorities, and hospitality partners to ensure the airport aligns with and supports the destination's comprehensive marketing plan.

Beyond the airport and destination authorities, thesis' findings can be utilised for other travel servicescapes such as touristic ports and train stations. The focus on environmental stimuli such as ambiance and layout underscores the necessity of optimising lighting, seating, signs, and open areas to improve functionality and foster an inviting environment. Moreover, incorporating culturally authentic components, such as indigenous art, historical displays, or regional cuisine, can foster a more profound feeling of place, rendering these venues distinctive and representative of the destination's culture. The moderating effect of responsiveness offers significant insights—ports and train stations need to develop flexible settings that accommodate various traveller requirements, including accessible facilities and real-time information systems. These additions augment traveller satisfaction and increase the destination's reputation, fostering return visits and favourable word-of-mouth related to airports.

8.6 Limitations

Like every study endeavour, this doctoral research has certain limits. The participants in the survey were selected using a non-probability sampling (i.e. quota sampling) method. In the first phase, they were picked from an online platform, and in the second phase, they were selected at certain tourist places. The selection of the research gathering methodologies was influenced by the limitations on accessing the airport grounds for data collection albeit multiple attempts were made. This fact partially restricts the

ability to apply the thesis findings to a broader context. Simultaneously, the sample size is constrained relative to the total number of travellers. During the initial round of data collecting, only one focus group was conducted with airport executives, limiting the qualitative data from airport practitioners' perspectives.

Meanwhile, gathering responses for various airports in both stages of data collection involves addressing concerns related to diversity and the over-representation of specific regions. Specifically, due to the cultural differences in the evaluation and creation of images, there are considerable differences in the emotional content of an airport's surroundings. A series of qualitative interviews with respondents from various cultural backgrounds revealed that opinions of airport attributes and overall satisfaction differed markedly based on cultural context. Participants from certain cultures (i.e. Germany) displayed a more protected and critical stance in assessing airport qualities, whereas others showed a warmer and positive perspective (i.e. America). These discrepancies underscore the influence of cultural influences on user perceptions and satisfaction regarding airport environmental stimuli. Moreover, in both phases of the studies, most respondents were Europeans, hence yielding the need to investigate evaluations from other cultures for equal comparisons.

At the same time, there is a constraint in gathering data that predominantly represents travellers from certain regions, diminishing the sample's representativeness. It is crucial to acknowledge that using questionnaires and interviews to gather information about travellers' feelings and experiences raises significant concerns regarding the potential influence of memory recall bias on their responses. In the current thesis, participants were chosen based on the criteria of having travelled within the last month. However, collecting data from airport environments ensures that experience is clearer in travellers' minds (Taheri et al., 2020).

8.7 Future Research

A new framework proposal for examining the interplay between an airport's environment and the evaluations made by travellers was presented in the current thesis. The study's findings emphasised the significant influence of emotions on the aforementioned interactions and the crucial role given by the moderators of sense of place and environmental responsiveness. The research emphasised the importance and

highlighted novel approaches to analysing the theoretical model of Stimulus-Organism-Response (S-O-R).

The findings have the potential to serve as a foundation for the creation of new research endeavours. Specifically, given that the research concentrated on the airport environment, which operates under a service paradigm, it would be highly intriguing to validate this paradigm in other service contexts, such as restaurants, retail stores, and museums. Comparing the explanatory power of environmental elements on visitor evaluations and emotions with those of other services can allow environmental stimuli researchers to map out similarities and differences. Importantly, it would be highly beneficial to ascertain the relevance of the emotions examined in the study to different service models and to assess the potential necessity of investigating other emotions (for example frustration) elicited by the provided experience.

The examination of the literature on emotion uncovers the subsequent paradox: Although most research applying the S-O-R model to the airport environment focuses on positive emotions, research conducted by Taheri, Olya, Ali, & Gannon (2020) stands out as one of the few that examines negative emotions, particularly dissatisfaction. Conducting further studies that specifically examines the impact of emotions with similar valence in service situations will enhance the growth of scientific knowledge in this domain. Future research might prioritise the investigation of specific underexplored emotions like surprise. The emotion of surprise can be generated by encountering unexpected stimuli that contradict our vague and unspecified expectations, or by encountering stimuli that were anticipated in detail but eventually fail to meet those expectations. On top of that, a concentration might be placed on particular low-arousal feelings like anxiety and stress. As a result of the fact that it is obvious that there are passengers who experience fear of travelling, this kind of feeling is a potential construct that might be investigated.

Integrating the flight class of passengers (e.g., economy, business, or first class) into forthcoming study will be essential for revealing differences in traveller experiences and expectations. Flight class frequently indicates various service quality, comfort, and exclusivity levels, which can significantly influence impressions of airport settings, satisfaction, and feelings. Comprehending these contrasts facilitates a more customised

strategy for upgrading traveller experiences across various market segments, augmenting research outcomes' practical significance and usefulness.

It is important to mention that psychophysiological techniques, reported in the psychology literature, are increasingly accurate in measuring such emotions yet their exploration at the behavioural level is relatively limited. Research has shown that measuring skin conductance activity, finger temperature, heart rate transit time, and heart beat interval are more reliable ways to measure emotions than questionnaire emotion scales (Wu et al., 2019). For emotions, it is advisable to also consider the purpose of travel as a component to be assessed in future studies. For example, when someone travels abroad for medical reasons, it can have a distinct impact on their emotions within the examined environment, in contrast to a traveller whose purpose is to travel for tourism and leisure activities. Furthermore, methodologically speaking, due to the constraint of memory recall bias, access-permitting, it would be interesting to gather traveller data from specific locations within the airport, such as gates, so travellers do not have to rely on memory to recount their airport experience. Conducting experiments in natural settings, such as airports, or in laboratory conditions is recommended to assess the impact of various environmental factors. For example, given the demonstrated significance of ambient elements like music, evaluating airport environments over a duration with music and another duration without it is recommended. The management of environmental stimuli can enhance the significance of airport cues. Additionally, in future research that employs qualitative methods to investigate the effects of environmental signals, interviewees could potentially be asked to identify the stimulus they consider to be the most significant and to provide an explanation. These insights are valuable for uncovering the most and least significant environmental cues, thereby offering airport and destination authorities opportunities for improvement.

The study's findings indicate that the sense of place plays a crucial role in moderating the relationship between the airport environment and the formation of an image, as well as traveller satisfaction. Travellers who encountered a strong sense of place reported their surprise and pleasure, while also recalling experiences from airports that prominently showcased the culture of the country they were in. Given the information provided, future studies in the field of airports could concentrate on examining the

particular stimuli that have a substantial effect on a sense of place and their influence on the emotions and evaluations of visitors. Such could be lively events in terms of traditional music or traditional food offerings (i.e. Nadi Airport), airport staff wearing uniforms reminding of the home country (i.e. Abu Dhabi Airport), brands' presence (i.e. Paris Airport), either digital display featuring a country's landscapes (i.e. Zurich Airport).

At the same time, it is possible to examine airports that exhibit a strong sense of place (eg. Vancouver Airport) and airports that exhibit a relatively weak sense of place (eg. Thessaloniki Airport). By employing this approach, it will be feasible to draw analogous comparisons and emphasise this concept's significance. Similarly, future studies should focus on individual airports rather than a broad range of airports to facilitate meaningful comparisons. This will enable researchers to gather a significant sample size for each airport, allowing for more accurate and comparative analyses. Furthermore, the interviews conducted during the second phase of data collecting revealed that external factors that influence travellers' airport selection were found to be of great importance. These variables can be incorporated and examined in future studies to determine if they impact the associations between airport environment and satisfaction, as well as airport environment and image formation. Moreover, it is possible to explore the concept of sense of place in other settings, such as museums and restaurants, to see if it directly impacts visitors' evaluations in terms of their perception and level of contentment.

Finally, results here clearly showed that the idea of environmental responsiveness played a crucial role as a moderator in the connection between airport environment and traveller satisfaction. Environmental responsiveness refers to an individual's personal characteristics regarding their awareness and concern for the environment. It is crucial to consider the evaluation variations between individuals with high and low environmental responsiveness. These specific characteristics can have a significant impact. Moreover, culture plays a crucial role in distinguishing emotions, as specific emotional states are more prone to appear in particular cultures compared to others, owing to distinct social norms and values. Future research can use the proposed framework and prioritise studying specific regions and/or cultures while avoiding the over-representation of certain regions, such as Europeans. Because of its paramount importance, cultural influence is a potential research focus. It is possible to focus down

on and compare nations that value individualism and those that value collectivism. Collecting additional data from a broader spectrum of travellers can enhance sample representativeness.

8.8 Concluding words

As the pragmatism epistemology, both quantitative and qualitative methods were used to fully explore the airport environmental factors that affect travellers' evaluations. The results are focused on useful outcomes, which can make airport environment more effective. The current thesis utilised quantitative and qualitative data in Study 1 and Study 2 to enhance the understanding of the airport environment and experience. Study 1 involved a focus group with airport executives aimed at gaining practitioners' insights regarding the airport environment's significant role and sense of place. In Study 2, qualitative insights from international travellers and quantitative measurements revealed new research avenues regarding variables not captured in the quantitative analysis. The airport's distance and associated costs were identified as significant variables, yet they were not explored through questionnaires. These findings confirm and offer additional insights for the evaluation of airport environments. Integrating qualitative and quantitative methods facilitates a thorough understanding of a research topic.

In both studies (S1, S2), the airport environment was examined as the independent variable, consisting of various environmental constructs. In Study 1, the primary outcome examined was airport image, whereas in Study 2, the focus shifted to travellers' satisfaction. The relationship between airport image and travellers' satisfaction is evident, though they remain distinct constructs. Examining both as an outcome enhances comprehension of the airport environment, a primary focus of the current research. Satisfaction in literature frequently influences long-term perceptions, alternatively, image. Examining airport image in one study and satisfaction in another elucidates both short-term and long-term outcomes of the airport environment. Measuring satisfaction provides travellers' assessments of immediate effectiveness, while airport image represents long-term perceptions of the airport. Thus, a comprehensive understanding of the airport experience is achieved.

Given the increasing importance of satisfaction and emotions, it is important that organisations, particularly airports, adequately address the environment they provide to travellers. While several airports exhibit homogeneity, the notion of a distinct experience enriches the traveller's journey. Similar to experiences in other contexts such as restaurants, museums, and retail environments, many environmental stimuli within airports have been shown to impact significant aspects of human evaluations, individually or collectively. This doctoral thesis specifically examined environmental aspects that influence the assessment of the airport's image and the emotions and satisfaction of travellers. The examination of the airport environment was enhanced by incorporating the human aspect to assess its impact on travellers' evaluations.

It is essential to emphasise that in Study 1 and Study 2, sense of place (for S_1 and S_2) and environmental responsiveness (for S_2) were assessed as moderators and were found as variables demonstrating statistical significance regarding travellers' evaluations regarding image and satisfaction. This attempt embodies initial efforts to examine variables and correlations within the domain of airports. Study 1, specifically, aimed to examine the role of sense of place as a moderator between environment and image. In another attempt, Study 2 examined environmental responsiveness and sense of place as moderators between airport environment and satisfaction, incorporating the human dimension. No other research has examined the human component as an element of the environment in evaluating moderators such as sense of place and environmental responsiveness. Importantly, Study 2 initiated an examination of the environmental responsiveness as a moderating factor within the airport sector. The reinforcement and extension of the SOR paradigm in the airport sector has created new applications in settings such as museums and retail establishments, incorporating factors such as moderators (e.g., sense of place, environmental responsiveness).

The airport environment functions as a strategic nexus for brands and service providers to engage with travellers more profoundly, shaping their impressions and emotional reactions. Investing in the improvement of airport settings enables marketers to cultivate a positive airport image, enhance traveller pleasure, and establish an emotional connection that extends beyond the travel experience. Incorporating a sense of place to an airport can boost traveller satisfaction and airport and destination image, but it can also be costly. Design, maintenance, and personnel are needed to implement culturally

rich and authentic stimuli. Thus, airports may prioritise low-cost but effective sense-of-place components that convey authenticity and regional identity. The musicians at Nadi Airport in Fiji welcome travellers with traditional music, a cost-effective and culturally relevant effort. Airports can balance financial concerns with traveller experiences by using such tactics to create a sense of place without overspending.

REFERENCES

Abou-Shouk, M. A., Zoair, N., El-Barbary, M. N., & Hewedi, M. M. (2018). Sense of place relationship with tourist satisfaction and intentional revisit: Evidence from Egypt. *International Journal of Tourism Research*, *20*(2), 172–181. https://doi.org/10.1002/jtr.2170

ACI, A. C. I. (2024). *Top 10 Busiest Airports in the World Shift with the rise of International and Air Travel demand*. https://aci.aero/2024/04/14/top-10-busiest-airports-in-the-world-shift-with-the-rise-of-international-air-travel-demand/#:~:text=The global total passenger forecast,the industry's resurgence and expansion.

Ali, F., Amin, M., & Ryu, K. (2015). The Role of Physical Environment, Price Perceptions, and Consumption Emotions in Developing Customer Satisfaction in Chinese Resort Hotels. *Journal of Quality Assurance in Hospitality and Tourism*, *17*(1), 45–70. https://doi.org/10.1080/1528008X.2015.1016595

Ali, F., Kim, W. G., & Ryu, K. (2016). The effect of physical environment on passenger delight and satisfaction: Moderating effect of national identity. *Tourism Management*, *57*, 213–224. https://doi.org/10.1016/j.tourman.2016.06.004

Antwi, C. O., Fan, C. jun, Nataliia, I., Aboagye, M. O., Xu, H., & Azamela, J. C. (2020). Do airport staff helpfulness and communication generate behavioral loyalty in transfer passengers? A conditional mediation analysis. *Journal of Retailing and Consumer Services*, *54*(January 2019), 102002. https://doi.org/10.1016/j.jretconser.2019.102002

Ariffin, A. A. M., Nameghi, E. N. M., & Soon, Y. K. (2015). The Relationships between National Identity, Hospitality, and Satisfaction among Foreign Hotel Guests. *Journal of Travel and Tourism Marketing*, *32*(6), 778–793. https://doi.org/10.1080/10548408.2014.955600

Ariffin, A. A. M., & Yahaya, M. F. (2013). The relationship between airport image, national identity and passengers delight: A case study of the Malaysian low cost carrier terminal (LCCT). *Journal of Air Transport Management*, *31*, 33–36. https://doi.org/10.1016/j.jairtraman.2013.02.005

Artuğer, S., Cevdet, B., & İbrahim, Ç. (2013). The Effect of Destination Image on Destination Loyalty: An Application in Alanya. *European Journal of Business and Management*, *5*(13), 124–136.

Babbie, E. R. (2007). *The practice of social research* (11th ed.). Thomson/Wadsworth.

Bagozzi, R. P., & Burnkrant, R. E. (1979). Attitude organization and the attitude-behavior relationship. *Journal of Personality and Social Psychology*, *37*(6), 913–929. https://doi.org/10.1037/0022-3514.37.6.913

Bagozzi, R. P., Gopinath, M., & Nyer, P. U. (1999). The role of emotions in marketing. *Journal of the Academy of Marketing Science*, *27*(2), 184–206. https://doi.org/10.1177/0092070399272005

Baker, J. (1986). The role of the environment in marketing services: the consumer perspective. *The Role of the Environment in Marketing Services: The Consumer Perspective*, *January 1986*, 79–89.

Baker, J., Grewal, D., & Parasuraman, A. (1994). The Influence of Store Environment on Quality Inferences and Store Image. *Journal of the Academy of Marketing Science*, *22*(4), 328–339. https://doi.org/10.1177/0092070394224002

Baker, J., Parasuraman, A., Grewal, D., & Voss, G. B. (2002). *The Influence of Multiple Store Environment Cues on Perceived Merchandise Value and Patronage*. *66*(April), 120–141.

Ballantine, P. W., Jack, R., & Parsons, A. G. (2010). Atmospheric cues and their effect on the hedonic retail experience. *International Journal of Retail and Distribution Management*, *38*(8), 641–653. https://doi.org/10.1108/09590551011057453

Ballantine, P. W., Parsons, A., & Comeskey, K. (2015). A conceptual model of the holistic effects of atmospheric cues in fashion retailing. *International Journal of Retail and Distribution Management*, *43*(6), 503–517. https://doi.org/10.1108/IJRDM-02-2014-0015

Barclay, I., Poolton, J., & Dann, Z. (1996). Improving competitive responsiveness via the virtual environment. *IEEE International Engineering Management Conference*, *February*, 52–62. https://doi.org/10.1109/iemc.1996.547789

Barnes, A. J., Hanoch, Y., & Rice, T. (2015). Determinants of coverage decisions in

health insurance marketplaces: Consumers' decision-making abilities and the amount of information in their choice environment. *Health Services Research*, *50*(1), 58–80. https://doi.org/10.1111/1475-6773.12181

Barry, J. B., & William, R. D. (1995). Consumer self-regulation in a retail environment. *Journal of Retailing*, *71*(1), 47–70. http://www.sciencedirect.com/science/article/B6W5D-45HDDP4-5/2/94db083795147562688cf2830fa79082

Batouei, A., Iranmanesh, M., Mustafa, H., Nikbin, D., & Ping, T. A. (2020). Components of airport experience and their roles in eliciting passengers' satisfaction and behavioural intentions. *Research in Transportation Business and Management*, *37*(October), 100585. https://doi.org/10.1016/j.rtbm.2020.100585

Berlyne, D. E. (1960). *Conflict, arousal, and curiosity*. McGraw-Hill.

Berman, B., & Evans, J. R. (1995). *Retail Management: A Strategic Approach* (6th ed.). Prentice Hall Press.

Bernardes, E. S., & Hanna, M. D. (2009). A theoretical review of flexibility, agility and responsiveness in the operations management literature: Toward a conceptual definition of customer responsiveness. *International Journal of Operations and Production Management*, *29*(1), 30–53. https://doi.org/10.1108/01443570910925352

Bezerra, G. C. L., & Gomes, C. F. (2016). Measuring airport service quality: A multidimensional approach. *Journal of Air Transport Management*, *53*, 85–93. https://doi.org/10.1016/j.jairtraman.2016.02.001

Bezerra, G. C. L., & Gomes, C. F. (2019). Determinants of passenger loyalty in multi-airport regions : Implications for tourism destination. *Tourism Management Perspectives*, *31*(August 2018), 145–158. https://doi.org/10.1016/j.tmp.2019.04.003

Biswas, D. (2019). Sensory Aspects of Retailing: Theoretical and Practical Implications. *Journal of Retailing*, *95*(4), 111–115. https://doi.org/10.1016/j.jretai.2019.12.001

Biswas, D., Lund, K., & Szocs, C. (2019). Sounds like a healthy retail atmospheric strategy: Effects of ambient music and background noise on food sales. *Journal of*

the Academy of Marketing Science, *47*(1), 37–55. https://doi.org/10.1007/s11747-018-0583-8

Biswas, D., Szocs, C., Chacko, R., & Wansink, B. (2017). Shining light on atmospherics: How ambient light influences food choices. *Journal of Marketing Research*, *54*(1), 111–123. https://doi.org/10.1509/jmr.14.0115

Bitner, M. J. (1992a). Servicescapes: The Impact of Physical Surroundings on Customers and Employees. *Journal of Marketing*, *56*(2), 57–71. https://doi.org/10.2307/1252042

Bitner, M. J. (1992b). Using Background Music to Affect the Behaviour of Supermarket Shoppers. *Journal of Marketing*, *56*(2), 57. https://doi.org/10.2307/1252042

Blanco-González, A., Cachón-Rodríguez, G., Hernández-Perlines, F., & Prado-Román, C. (2023). Effects of social responsibility on legitimacy and revisit intention: The moderating role of anxiety. *Journal of Business Research*, *157*(December 2022). https://doi.org/10.1016/j.jbusres.2022.113583

Bogicevic, V., Yang, W., Bilgihan, A., & Bujisic, M. (2013). Airport service quality drivers of passenger satisfaction. *Tourism Review*, *68*(4), 3–18. https://doi.org/10.1108/TR-09-2013-0047

Bogicevic, V., Yang, W., Cobanoglu, C., Bilgihan, A., & Bujisic, M. (2016). Traveler anxiety and enjoyment: The effect of airport environment on traveler's emotions. *Journal of Air Transport Management*, *57*, 122–129. https://doi.org/10.1016/j.jairtraman.2016.07.019

Bonn, M. A., Joseph-Mathews, S. M., Dai, M., Hayes, S., & Cave, J. (2007). Heritage/cultural attraction atmospherics: Creating the right environment for the heritage/cultural visitor. *Journal of Travel Research*, *45*(3), 345–354. https://doi.org/10.1177/0047287506295947

Booms, B. H., & Bitner, M. J. (1982). Marketing Services by Managing the Environment. *Cornell Hotel and Restaurant Administration Quarterly*, *23*(1), 35–40. https://doi.org/10.1177/001088048202300107

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101.

Brown, S. (1994). Marketing as Multiplex: Screening Postmodernism. *European Journal of Marketing*, *28*(8/9), 27–51. https://doi.org/10.1108/03090569410067631

Browne, M. W., & Cudeck, R. (1992). Alternative ways of assessing model fit. *Sociologican Methods and Research*, *21*(2), 230–258.

Bryman, A. (2001). *Social research methods.* Oxford University Press.

Bryman, A. (2006). Integrating quantitative and qualitative research: how is it done? *Qualitative Research*, *6*(1), 97–113.

Bryman, A. (2012). *Social Reserach Methods* (4th ed.). Oxford University Press.

Bryman, A., & Bell, E. (2011). *Business Research Methods* (3rd ed.). Oxford University Press.

Byon, K. K., & Zhang, J. J. (2010). Development of a scale measuring destination image. *Marketing Intelligence and Planning*, *28*(4), 508–532. https://doi.org/10.1108/02634501011053595

Campelo, A., Aitken, R., Thyne, M., & Gnoth, J. (2014). Sense of Place: The Importance for Destination Branding. *Journal of Travel Research*, *53*(2), 154–166. https://doi.org/10.1177/0047287513496474

Castro, R., & Lohmann, G. (2014). Airport branding: Content analysis of vision statements. *Research in Transportation Business and Management*, *10*, 4–14. https://doi.org/10.1016/j.rtbm.2014.01.001

Chebat, J. C., & Michon, R. (2003). Impact of ambient odors on mall shoppers' emotions, cognition, and spending: A test of competitive causal theories. *Journal of Business Research*, *56*(7), 529–539. https://doi.org/10.1016/S0148-2963(01)00247-8

Chen, H. T., & Lin, Y. T. (2018). A study of the relationships among sensory experience, emotion, and buying behavior in coffeehouse chains. *Service Business*, *12*(3), 551–573. https://doi.org/10.1007/s11628-017-0354-5

Choi, H., & Kandampully, J. (2018). The effect of atmosphere on customer engagement in upscale hotels: An application of S-O-R paradigm. *International Journal of Hospitality Management*, *77*, 40–50. https://doi.org/10.1016/j.ijhm.2018.06.012

Civelek, M. E. (2018). Essentials of Structural Equation Modeling. In *Zea Books*. https://doi.org/10.13014/k2sj1hr5

Cohen, L., Manion, L., & Morrison, K. (2007). *Research methods in education* (6th ed.). Routledge.

Corbin, J., & Strauss, A. (1990). Grounded Theory Research: Procedures, Canons, and Evaluative Criteria. *Qualitative Sociology*, *13*(1), 3–21.

Creswell, J. W. (2009). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. In *Sage* (Third). Sage.

Crotty, M. (1998). *The Foundations of Social Research: Meaning and perspective in the research process*. Sage.

Dalmoro, M., Isabella, G., Almeida, S. O. de, & dos Santos Fleck, J. P. (2019). Developing a holistic understanding of consumers' experiences: An integrative analysis of objective and subjective elements in physical retail purchases. *European Journal of Marketing*, *53*(10), 2054–2079. https://doi.org/10.1108/EJM-10-2016-0586

Davis, T. R. (1984). The influence of the physical environment in offices. *Academy of Management Review. Academy of Management*, *9*(2), 271–283. https://doi.org/10.5465/AMR.1984.4277654

Del Chiappa, G., Atzeni, M., & Loriga, S. (2019). Profiling airport travellers based on their perceptions, satisfaction and intention to recommend food and beverage services. *European Journal of Tourism Research*, *23*, 172–190.

Dewey, J. (1997). How we think. In *How we think*. Dover Publications.

Dichter, E. (1985). What's In An Image. *Journal of Consumer Marketing*, *2*(1), 75–81. https://doi.org/10.1108/eb038824

Dilmperi, A., King, T., Dennis, C., Demangeot, C., Broderick, A. J., Dube, L., Chebat, J., Morin, S., North, A. C., Hargreaves, D. J., McKendrick, J., Mattila, B. A. S., & Wirtz, J. (2010). Congruency of scent and music. In *Psychology and Marketing* (Vol. 77, Issue 2, pp. 305–319). https://doi.org/10.1002/mar.20998

Donovan, R. J., Rossiter, J. R., Marcoolyn, G., & Nesdale, A. (1994). Store Atmosphere and Purchasing Behavior. *Journal of Retailing*, *70*(3), 283–294.

Ellis, D. S., & Brighouse, G. (1952). Effects of Music on Respiration and Heart Rate. *American Journal of Psychology*, *65*(1), 39–47.

Erkmen, E., & Hancer, M. (2019). Building brand relationship for restaurants: An examination of other customers, brand image, trust, and restaurant attributes. *International Journal of Contemporary Hospitality Management*, *31*(3), 1469–1487. https://doi.org/10.1108/IJCHM-08-2017-0516

Eroglu, S. A., Machleit, K. A., & Davis, L. M. (2001). Atmospheric qualities of online retailing: A conceptual model and implications. *Journal of Business Research*, *54*(2), 177–184. https://doi.org/10.1016/S0148-2963(99)00087-9

Eroglu, S. A., Machleit, K. A., & Davis, L. M. (2003). Empirical Testing of a Model of Online Store Atmospherics and Shopper Responses. *Psychology and Marketing*, *20*(2), 139–150. https://doi.org/10.1002/mar.10064

Eurostat. (2024). *Air passenger trasport - data by month*. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Air_passenger_transport_-_data_by_month#:~:text=Eurocontrol) (avia_tf_cm)-,In 2023%2C 976 million air passengers carried at EU level,every month (Figure 2)

Farmaki, A., Georgiou, M., & Christou, P. (2017). Growth and impacts of all-inclusive holiday packages: echoes from the industry. *Tourism Planning & Development*, *14*(4), 483–502.

Field, A. (2018). *Discovering Statistics Using IBM SPSS Statistics* (5th ed.). Sage.

Figueiredo, T., & Castro, R. (2019). Passengers perceptions of airport branding strategies : The case of Tom Jobim International Airport – RIOgaleão , Brazil. *Journal of Air Transport Management*, *74*, 13–19. https://doi.org/10.1016/j.jairtraman.2018.09.010

Firat, F. A. (1992). Postmodernism and the Marketing Organization. *Journal of Organizational Change Management*, *5*(1), 79–83.

Firat, F. A., & Shultz, C. J. (1997). From segmentation to fragmentation: Markets and marketing strategy in the postmodern era. *European Journal of Marketing*, *31*(3/4), 183–207. https://doi.org/10.1108/EUM0000000004321

Fisher, C. M., & Buglear, C. M. J. (2010). Researching and writing a dissertation. In *Pearson Education Limited* (Third).

Fodness, D., & Murray, B. (2007). Passengers' expectations of airport service quality. *Journal of Services Marketing*, *21*(7), 492–506. https://doi.org/10.1108/08876040710824852

Fornell, C., & Larcker, D. F. (1981). Structural Equation Models With Unobservable Variables and Measurement Error : Algebra and Statistics. *Journal of Marketing Research*, *18*(3), 382–388.

Fouroudi, P., Kitchen, P. J., Marvi, R., Akarsu, T. N., & Uddin, H. (2020). A bibliometric investigation of service failure literature and a research agenda. *European Journal of Marketing*, *54*(10), 2575–2619. https://doi.org/10.1108/EJM-07-2019-0588

Foxall, G. R. (1997). The emotional texture of consumer environments: A systematic approach to atmospherics. *Journal of Economic Psychology*, *18*(5), 505–523. https://doi.org/10.1016/S0167-4870(97)00021-4

Francioni, B., Savelli, E., & Cioppi, M. (2018). Store satisfaction and store loyalty: The moderating role of store atmosphere. *Journal of Retailing and Consumer Services*, *43*(October 2016), 333–341. https://doi.org/10.1016/j.jretconser.2018.05.005

François Lecompte, A., Trelohan, M., Gentric, M., & Aquilina, M. (2017). Putting sense of place at the centre of place brand development. *Journal of Marketing Management*, *33*(5–6), 400–420. https://doi.org/10.1080/0267257X.2017.1307872

Freire, P. (1996). *Pedagogy of the oppressed.* (Revised Ed). Penguin.

García-Sánchez, I. M., Rodríguez-Ariza, L., & Frías-Aceituno, J. V. (2013). The cultural system and integrated reporting. *International Business Review*, *22*(5), 828–838. https://doi.org/10.1016/j.ibusrev.2013.01.007

Gardiner, S., Vada, S., Yang, E. C. L., Khoo, C., & Le, T. H. (2022). Recreating history: The evolving negotiation of staged authenticity in tourism experiences. *Tourism Management*, *91*(March), 104515. https://doi.org/10.1016/j.tourman.2022.104515

Geuens, M., Vantomme, D., & Brengman, M. (2004). Developing a typology of airport shoppers. *Tourism Management*, *25*(5), 615–622.

https://doi.org/10.1016/j.tourman.2003.07.003

Gindy, N. N., Saad, S. M., & Yue, Y. (1999). Manufacturing responsiveness through integrated process planning and scheduling. *International Journal of Production Research*, *37*(11), 2399–2418. https://doi.org/10.1080/002075499190572

Goi, M. T., Kalidas, V., & Zeeshan, M. (2014). Comparison of Stimulus-Organism-Response Framework between International and Local Retailer. *Procedia - Social and Behavioral Sciences*, *130*, 461–468. https://doi.org/10.1016/j.sbspro.2014.04.054

Goldman, A. I. (1986). Epistemology and cognition. In *Epistemology and cognition*. Harvard University Press.

Goulding, C. (1999). *Grounded theory: Some reflections on paradigm, procedures and misconceptions.* (WP006/99).

Graham, A., Papatheodorou, A., & Forsyth, P. (2008). *Aviation and Tourism: Implications for Leisure Travellers*. Ashgate Publishing Limited.

Graham, A., Wattanacharoensil, W., & Schuckert, M. (2017). An analysis of the airport experience from an air traveler perspective. *Journal of Hospitality and Tourism Management*.

Grönroos, C. (1988). Service Quality: The Six Criteria Of Good Perceived Service Quality. *Review of Business*, *9*(3), 10–13.

Grönroos, C. (1999). Relationship Marketing: Challenges for the Organization. *Journal of Business Research*, *46*, 327–335. https://doi.org/10.2307/4588324

Grönroos, C., & Gummerus, J. (2014). The service revolution and its marketing implications: service logic vs service-dominant logic. *Managing Service Quality*, *24*(3), 206–229.

Gustafson, P. (2001). Meanings of place: Everyday experience and theoretical conceptualizations. *Journal of Environmental Psychology*, *21*(1), 5–16. https://doi.org/10.1006/jevp.2000.0185

Ha, J., & Jang, S. C. (2012). The effects of dining atmospherics on behavioral intentions through quality perception. *Journal of Services Marketing*, *26*(3), 204–215. https://doi.org/10.1108/08876041211224004

Hair, J. F., Howard, M. C., & Nitzl, C. (2020). Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. *Journal of Business Research*, *109*, 101–110. https://doi.org/10.1016/j.jbusres.2019.11.069

Halpern, N., & Graham, A. (2013). *Airport Marketing*. Routledge.

Han, H., & Hyun, S. S. (2018). Investigating customers' shopping behaviors at airport duty-free shops: impact of shopping flow and alternative shopping malls' attractiveness. *Asia Pacific Journal of Tourism Research*, *23*(7), 627–638. https://doi.org/10.1080/10941665.2018.1485717

Han, H., Kiatkawsin, K., & Kim, W. (2019). Traveler loyalty and its antecedents in the hotel industry: Impact of continuance commitment. *International Journal of Contemporary Hospitality Management*, *31*(1), 474–495. https://doi.org/10.1108/IJCHM-04-2017-0237

Han, H., Olya, H. G. T., Untaru, E. N., Ispas, A., Kim, J. J., & Kim, W. (2019). Impact of airport green atmospherics on mental health value, image, and loyalty among visitors and workers. *Business Strategy and the Environment*, 1–13. https://doi.org/10.1002/bse.2425

Hannan, M. T., & Freeman, J. (1977). The Population Ecology of Organizations Author (s): Michael T . Hannan and John Freeman Published by : The University of Chicago Press Stable. *American Journal of Sociology*, *82*(5), 929–964.

Hanoch, Y. (2002). "Neither an Angel nor an Ant": Emotion as an aid to bounded Rationality. *Journal of Economic Psychology*, *23*, 1–25.

Hatzithomas, L., Gkorezis, P., Zotou, A. Y., & Tsourvakas, G. (2018). The impact of atmospherics on WOM about short life-cycle products: the case of motion pictures. *Journal of Product and Brand Management*, *27*(5), 471–483. https://doi.org/10.1108/JPBM-01-2017-1401

Hay, R. (1998). SENSE OF PLACE IN DEVELOPMENTAL CONTEXT. *Journal of Environmental Psychology*, *18*, 5–29. https://doi.org/10.1006/jevp.1997.0060

Hayes, A. F. (2022). *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach* (Third Edit). The Guildford Press.

Helmefalk, M. (2019). Browsing behaviour as a mediator: the impact of multi-sensory

cues on purchasing. *Journal of Consumer Marketing*, *36*(2), 253–263. https://doi.org/10.1108/JCM-10-2017-2392

Helmefalk, M., & Hultén, B. (2017). Multi-sensory congruent cues in designing retail store atmosphere: Effects on shoppers' emotions and purchase behavior. *Journal of Retailing and Consumer Services*, *38*(March), 1–11. https://doi.org/10.1016/j.jretconser.2017.04.007

Hitchcock, M. (1998). Tourism, Tam An Mini , and national identity . *Indonesia and the Malay World*, *26*(75), 124–135. https://doi.org/10.1080/13639819808729916

Hong, S. J., Choi, D., & Chae, J. (2020). Exploring different airport users' service quality satisfaction between service providers and air travelers. *Journal of Retailing and Consumer Services*, *52*(September 2019), 101917. https://doi.org/10.1016/j.jretconser.2019.101917

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1–55.

Idoko, E. C., Ukenna, S. I., & Obeta, C. E. (2019). Determinants of shopping mall patronage frequency in a developing economy: Evidence from Nigerian mall shoppers. *Journal of Retailing and Consumer Services*, *48*(October 2018), 186–201. https://doi.org/10.1016/j.jretconser.2019.02.001

Ifeanyichukwu, C. D., & Peter, A. (2018). The Role of Sensory Marketing in Achieving Customer Patronage. *International Research Journal of Management, IT & Social Sciences*, *5*(2), 155. https://doi.org/10.21744/irjmis.v5i2.632

Ingram, C., Themistocleous, C., Rickly, J. M., & McCabe, S. (2021). Marketing "Literacy England" beyond the special interest tourist. *Annals of Tourism Research*, 100018.

Ingram, Claire, Themistocleous, C., Rickly, J. M., & McCabe, S. (2021). Marketing 'Literary England' beyond the special interest tourist. *Annals of Tourism Research Empirical Insights*, *2*(2), 100018. https://doi.org/10.1016/j.annale.2021.100018

Ivankova, N. V, Creswell, J. W., & Stick, S. L. (2006). Using Mixed-Methods Sequential Explanatory Design: From Theory to Practice. *Field Methods*, *18*(1), 3–

20.

Jacoby, J. (2002). Stimulus-organism-response reconsidered: An evolutionary step in modeling (consumer) behavior. *Journal of Consumer Psychology*, *12*(1), 51–57. https://doi.org/10.1207/153276602753338081

Jang, S. C., & Namkung, Y. (2009). Perceived quality, emotions, and behavioral intentions: Application of an extended Mehrabian–Russell model to restaurants. *Journal of Business Research*, *62*(4), 451–460. https://doi.org/10.1016/j.jbusres.2008.01.038

Jeon, S., & Kim, M. su. (2012). The effect of the servicescape on customers' behavioral intentions in an international airport service environment. *Service Business*, *6*(3), 279–295. https://doi.org/10.1007/s11628-012-0136-z

Jiang, Q., & McCabe, S. (2023). Exploring fundamental motives of tourists visiting dark tourism sites. *Asia Pacific Journal of Tourism Research*, *28*(6), 610–624.

Keillor, B. D., & Hult, G. T. M. (1999). A five-country study of national identity: Implications for international marketing. *International Marketing Review*, *16*(1), 65–84.

Kim, H. C., Chua, B. L., Lee, S., Boo, H. C., & Han, H. (2016). Understanding Airline Travelers' Perceptions of Well-Being: The Role of Cognition, Emotion, and Sensory Experiences in Airline Lounges. *Journal of Travel and Tourism Marketing*, *33*(9), 1213–1234. https://doi.org/10.1080/10548408.2015.1094003

Kim, J. H. (2014). The antecedents of memorable tourism experiences: The development of a scale to measure the destination attributes associated with memorable experiences. *Tourism Management*, *44*, 34–45. https://doi.org/10.1016/j.tourman.2014.02.007

Kim, J. H., Guo, J., & Wang, Y. (2022). Tourists' negative emotions: antecedents and consequences. *Current Issues in Tourism*, *25*(12), 1987–2005.

Kim, M. H., Park, J. W., & Choi, Y. J. (2016). A study on the effect of airport choice attributes on airport users' satisfaction and behavioural intentions: The case of Gimpo International Airport. *Journal of Airport Management*, *10*(2).

Kitto, S. C., Chesters, J., & Grbich, C. (2008). Quality in qualitative research. *The*

Medical Journal of Australia, *188*(4), 243–246.

Kitzinger, J. (1995). Qualitative Research: Introducing focus groups. *British Medical Journal*, *311*(7000), 299–302.

Kline, R. B. (2023). *Principles and Practice of Structural Equation Modeling* (5th ed.). The Guildfore Press.

Kolar, T., & Zabkar, V. (2010). A consumer-based model of authenticity: An oxymoron or the foundation of cultural heritage marketing? *Tourism Management*, *31*(5), 652–664. https://doi.org/10.1016/j.tourman.2009.07.010

Kotler, Philip. (1973). Kotler - Atmospherics as a marketing tool. In *Journal of Retailing* (pp. 48–64).

Kotler, Philliph. (1973). Atmospherics as a marketing tool. *Journal of Retailing*, *49*(4), 48–64.

Krishna, A., & Schwarz, N. (2014). Sensory marketing, embodiment, and grounded cognition: A review and introduction. *Journal of Consumer Psychology*, *24*(2), 159–168. https://doi.org/10.1016/j.jcps.2013.12.006

Krueger, R. A. (1997). *Analyzing & reporting focus group results* (1st ed.). SAGE.

Kudryavtsev, A., Stedman, R. C., & Krasny, M. E. (2012). Sense of place in environmental education. *Environmental Education Research*, *18*(2), 229–250. https://doi.org/10.1080/13504622.2011.609615

Kuhn, T. S. (1996). *The structure of scientific revolutions.* (3rd ed.). University of Chicago Press.

Lee, H., & Lee, E. (2022). Effects of coloured lighting on pleasure and arousal in relation to cultural differences. *Lighting Research and Technology*, *54*(2), 145–162. https://doi.org/10.1177/1477153521999592

Levine, L. J., & Burgess, S. L. (1997). Beyond general arousal: Effects of specific emotions on memory. *Social Cognition*, *15*(3), 157–181. https://doi.org/10.1521/soco.1997.15.3.157

Lin, I. Y. (2004). Evaluating a servicescape: The effect of cognition and emotion. *International Journal of Hospitality Management*, *23*(2), 163–178.

https://doi.org/10.1016/j.ijhm.2003.01.001

Lin, I. Y., & Mattila, A. S. (2010). Restaurant servicescape, service encounter, and perceived congruency on customers' emotions and satisfaction. *Journal of Hospitality Marketing and Management*, *19*(8), 819–841. https://doi.org/10.1080/19368623.2010.514547

Litosseliti, L. (2003). *Using focus groups in research*. Continuum.

Liu, Y., & Jang, S. C. (Shawn). (2009). The effects of dining atmospherics: An extended Mehrabian-Russell model. *International Journal of Hospitality Management*, *28*(4), 494–503. https://doi.org/10.1016/j.ijhm.2009.01.002

Loureiro, S. M. C. (2019). Exploring the role of atmospheric cues and authentic pride on perceived authenticity assessment of museum visitors. *International Journal of Tourism Research*, *21*(4), 413–426. https://doi.org/10.1002/jtr.2265

Loureiro, S. M. C., Koo, D. M., & Ribeiro, L. (2016). Effects of atmospherics on emotions and intention with respect to involvement in different shopping environments. *Global Branding and Country of Origin: Creativity and Passion*, *9159*, 79–103. https://doi.org/10.1080/21639159.2013.820880

Lucia-Palacios, L., Perez-Lopez, R., & Polo-Redondo, Y. (2016). Cognitive, affective and behavioural responses in mall experience. *International Journal of Retail & Distribution Management*, *44*(1), 4–21.

Lynch, K. (1998). *Good city form*. MIT Press.

Mainardes, E. W., Melo, R. F. S. de, & Moreira, N. C. (2021). Effects of airport service quality on the corporate image of airports. *Research in Transportation Business and Management*, *41*(May). https://doi.org/10.1016/j.rtbm.2021.100668

Mannan, M., Chowdhury, N., Sarker, P., & Amir, R. (2019). Modeling customer satisfaction and revisit intention in Bangladeshi dining restaurants. *Journal of Modelling in Management*, *14*(4), 922–947. https://doi.org/10.1108/JM2-12-2017-0135

Manthiou, A., Ayadi, K., Lee, S. (Ally), Chiang, L., & Tang, L. (Rebecca). (2016). Exploring the roles of self-concept and future memory at consumer events: the application of an extended Mehrabian–Russell model. *Journal of Travel and*

Tourism Marketing, *34*(4), 531–543. https://doi.org/10.1080/10548408.2016.1208786

Mattila, A. S., & Wirtz, J. (2001). Congruency of scent and music as a driver of in-store evaluations and behavior. *Journal of Retailing*, *77*, 273–289.

McGoldrick, P. J., & Pieros, C. P. (1998). Atmospherics, Pleasure And Arousal: The Influence Of Response Moderators. *Journal of Marketing Management*, *14*(1–3), 173–197. https://doi.org/10.1362/026725798784959372

McKechnie, G. E. (1974). The Psychological Structure of Leisure: Past Behavior. *Journal of Leisure Research*, *6*(1), 27–45. https://doi.org/https://doi.org/10.1080/00222216.1974.11970163

Mehrabian, A., & Russell, J. A. (1974). *An approach to environmental psychology*. the MIT Press.

Milliman, R. E., & Fugate, D. L. (1993). Atmospherics as an Emerging Influence in the Design of Exchange Environments. *Journal of Marketing Management*, *3*(1), 66–75.

Moon, H., Yoon, H. J., & Han, H. (2016). Role of Airport Physical Environments in the Satisfaction Generation Process: Mediating the Impact of Traveller Emotion. *Asia Pacific Journal of Tourism Research*, *21*(2), 193–211. https://doi.org/10.1080/10941665.2015.1048260

Moon, H., Yoon, H. J., & Han, H. (2017). The effect of airport atmospherics on satisfaction and behavioral intentions: testing the moderating role of perceived safety. *Journal of Travel and Tourism Marketing*, *34*(6), 749–763. https://doi.org/10.1080/10548408.2016.1223779

Morgan, D. L. (1998). *The focus group guide book*. SAGE.

Muramatsu, R., & Hanoch, Y. (2005). Emotions as a mechanism for boundedly rational agents: The fast and frugal way. *Journal of Economic Psychology*, *26*(2), 201–221. https://doi.org/10.1016/j.joep.2004.03.001

Najafi, M., & Shariff, M. K. B. M. (2011). The concept of place and sense of place in architectural studies. *World Academy of Science, Engineering and Technology*, *80*, 1100–1106. https://doi.org/10.5281/zenodo.1082222

Nghiêm-Phú, B., & Suter, J. R. (2018). Airport image: An exploratory study of McCarran International Airport. *Journal of Air Transport Management*, *67*(December 2017), 72–84. https://doi.org/10.1016/j.jairtraman.2017.11.011

Nicolau, J. L., Mellinas, J. P., & Martin-Fuentes, E. (2020). The halo effect: A longitudinal approach. *Annals of Tourism Research*, *83*.

Nunnally, J. C., Knott, P. D., Duchnowski, A., & Parker, R. (1967). Pupillary response as a general measure of activation. *Perception & Psychophysics*, *2*(4), 149–155. https://doi.org/10.3758/BF03210310

Olivier, I., & Fletcher, M. (2000). *Atmospherics and the Establishment of Long- Term Customer Relationships in a Retail Environment*. *3*(2), 334–343.

Onwuegbuzie, A. J., & Collins, K. M. T. (2007). A typology of mixed methods sampling designs in social science research. *Qualitative Report*, *12*(2), 281–316.

Palmer, C. (1999). Tourism and the symbols of identity. *Tourism Management*, *20*(3), 313–321. https://doi.org/10.1016/S0261-5177(98)00120-4

Panigyrakis, G., Papakonstantinou, K., & Yerimou, P. (2020). Measuring country attachment, image evaluations and overall country equity in crises through the country's responsiveness. The case of Greece, Cyprus and Sweden on the COVID-19 world crisis. *European Cultures in Corporate and Business Communication Conference*.

Panigyrakis, G., Yerimou, P., & Kyriacou, E. (2021). The role of office atmospherics on enhancing internal marketing effectiveness in fulfilling job satisfaction: an application to the shipping industry. *25th International Corporate and Marketing Communications Conference*.

Pantano, E., Priporas, C. V., Sorace, S., & Iazzolino, G. (2017). Does innovation-orientation lead to retail industry growth? Empirical evidence from patent analysis. *Journal of Retailing and Consumer Services*, *34*(April 2016), 88–94. https://doi.org/10.1016/j.jretconser.2016.10.001

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A Conceptual Model of Service Quality and Its Implications for Future Research. *Journal of Marketing*, *49*(4), 41–50. https://doi.org/10.2307/1251430

Park, C. W., Iyer, E. S., & Smith, D. C. (1989). The Effects of Situational Factors on In-Store Grocery Shopping Behavior: The Role of Store Environment and Time Available for Shopping. *Journal of Consumer Research*, *15*(4), 422. https://doi.org/10.1086/209182

Park, K., & Park, J. W. (2018). The effects of the servicescape of airport transfer amenities on the behavioral intentions of transfer passengers: A case study on Incheon International Airport. *Journal of Air Transport Management*, *72*, 68–76. https://doi.org/10.1016/j.jairtraman.2018.08.002

Pavlov, I. P. (1902). *The work of the digestive glands*. Griffin.

Peng, C., & Kim, Y. G. (2014). Application of the Stimuli-Organism-Response (S-O-R) Framework to Online Shopping Behavior. *Journal of Internet Commerce*, *13*(November), 159–176. https://doi.org/10.1080/15332861.2014.944437

Petit, O., Cheok, A. D., Spence, C., Velasco, C., & Karunanayaka, K. T. (2015). Sensory marketing in light of new technologies. *ACM International Conference Proceeding Series*, *16-19-Nove*, 3–6. https://doi.org/10.1145/2832932.2837006

Petrick, J. F., Morais, D. D., & Norman, W. C. (2001). An examination of the determinants of entertainment vacationers' intentions to revisit. *Journal of Travel Research*, *40*(1), 41–48. https://doi.org/10.1177/004728750104000106

Piancatelli, C., Massi, M., & Vocino, A. (2021). The role of atmosphere in Italian museums: effects on brand perceptions and visitor behavioral intentions. *Journal of Strategic Marketing*, *29*(6), 546–566. https://doi.org/10.1080/0965254X.2020.1786846

Piccinelli, S., Moro, S., & Rita, P. (2021). Air-travelers ' concerns emerging from online comments during the COVID-19 outbreak. *Tourism Management*, *85*(December 2020). https://doi.org/10.1016/j.tourman.2021.104313

Prentice, C., & Kadan, M. (2019). The role of airport service quality in airport and destination choice. *Journal of Retailing and Consumer Services*, *47*(November 2018), 40–48. https://doi.org/10.1016/j.jretconser.2018.10.006

Prentice, C., Wang, X., & Manhas, P. S. (2021). The spillover effect of airport service experience on destination revisit intention. *Journal of Hospitality and Tourism*

Management, *48*(January), 119–127. https://doi.org/10.1016/j.jhtm.2021.06.001

Preston, C. C., & Colman, A. M. (2000). Optimal number of response categories in rating scales: Reliability, validity, discriminating power, and respondent preferences. *Acta Psychologica*, *104*(1), 1–15. https://doi.org/10.1016/S0001-6918(99)00050-5

Proshansky, H. M., William, I. H., & Leanne, R. G. (1970). *Environmental psychology: Man and his physical setting* (Holt, Rinehart, & Winston (eds.)).

Reichhart, A., & Holweg, M. (2007). Creating the customer-responsive supply chain: A reconciliation of concepts. *International Journal of Operations and Production Management*, *27*(11), 1144–1172. https://doi.org/10.1108/01443570710830575

Relph, E. (1976). *Place and placelessness*. Pion.

Richins, M. L. (1997). Measuring Emotions in the Consumption Experience. *Journal of Consumer Research*, *24*(2), 127–146.

Rickly, J. M., & McCabe, S. (2017). Authenticity for Tourism Design and Experience. In D. R. Fesenmaier & Z. Xiang (Eds.), *Tourism on the Verge* (pp. 55–68). Springer Publishing Switzerland. https://doi.org/10.1007/978-3-319-42773-7_6

Robinson, O. C. (2014). Sampling in Interview-based qualitative research: A theoretical and practical guide. *Qualitative Research in Psychology*, *11*(1), 25–41.

Roux, T., Mahlangu, S., & Manetje, T. (2020). Digital signage as an opportunity to enhance the mall environment: a moderated mediation model. *International Journal of Retail and Distribution Management*, *48*(10), 1099–1119. https://doi.org/10.1108/IJRDM-10-2018-0220

Rowley, J., & Slack, F. (1999). The retail experience in airport departure lounges : reaching for timelessness and placelessness experience. *International Marketing Review*, *16*(4), 363–375.

Rudestam, K. E., & Newton, R. R. (2015). *Surviving your dissertation: A comprehensive Guide to Content and Process* (4th ed.). Sage.

Russell, J. A., & Pratt, G. (1980). A description of the affective quality attributed to environments. *Journal of Personality and Social Psychology*, *38*(2), 311–322. https://doi.org/10.1037//0022-3514.38.2.311

Ryu, Y. K., & Park, J. W. (2019). Investigating the effect of experience in an Airport on pleasure, satisfaction, and airport image: A case study on Incheon International Airport. *Sustainability (Switzerland)*, *11*(17), 1–11. https://doi.org/10.3390/su11174616

Schiffman, H. R. (2001). *Sensation and Perception* (5th ed.). Wiley.

Shamai, S. (1991). Sense of place: an empirical measurement. *Geoforum*, *22*(3), 347–358. https://doi.org/10.1016/0016-7185(91)90017-K

Shamai, S., & Ilatov, Z. (2005). Measuring sense of place: Methodological aspects. *Tijdschrift Voor Economische En Sociale Geografie*, *96*(5), 467–476. https://doi.org/10.1111/j.1467-9663.2005.00479.x

Sharma, A., & Stafford, T. F. (2000). The Effect of Retail Atmospherics on Customers' Perceptions of Salespeople and Customer Persuasion: *Journal of Business Research*, *49*(183–191).

Sherman, E., Mathur, A., & Smith, R. B. (1997). Store environment and consumer purchase behavior: Mediating role of consumer emotions. *Psychology and Marketing*, *14*(4), 361–378. https://doi.org/10.1002/(SICI)1520-6793(199707)14:4<361::AID-MAR4>3.0.CO;2-7

Shock, N. W., & Coombs, C. H. (1937). Changes in Skin Resistance and Affective Tone. *American Journal of Psychology*, *49*(4), 611–620.

Siu, N. Y. M., Wan, P. Y. K., & Dong, P. (2012). The impact of the servicescape on the desire to stay in convention and exhibition centers: The case of Macao. *International Journal of Hospitality Management*, *31*(1), 236–246. https://doi.org/10.1016/j.ijhm.2011.06.011

Skandrani, H., Mouelhi, N. B. D., & Malek, F. (2011). Effect of store atmospherics on employees' reactions. *International Journal of Retail and Distribution Management*, *39*(1), 51–67. https://doi.org/10.1108/09590551111104477

Skytrax, S. (2024). *Airport ratings*. https://skytraxratings.com/airports/heraklion-airport-rating

Smith, A. D. (1994). The problem of national identity: Ancient, medieval and modern? *Ethnic and Racial Studies*, *17*(3), 375–399.

https://doi.org/10.1080/01419870.1994.9993832

Smith, C. J., & Relph, E. (1978). Place and Placelessness. *Geographical Review*, *68*(1), 116. https://doi.org/10.2307/213523

Souchon, A. L., Cadogan, J. W., Procter, D. B., & Dewsnap, B. (2004). Marketing information use and organisational performance: The mediating role of responsiveness. *Journal of Strategic Marketing*, *12*(4), 231–242. https://doi.org/10.1080/0965254042000308057

Spence, C., Puccinelli, N. M., Grewal, D., & Roggeveen, A. L. (2014). Store Atmospherics: A Multisensory Perspective. *Psychology & Marketing*, *31*(7), 472–488. https://doi.org/10.1002/mar.20709

Statista. (2024). *Where do travelers spend most of their time while waiting for their flight?* https://www.statista.com/statistics/641451/passenger-experience-at-airports-worldwide-survey/

Stedman, R. C. (2003). Is it really just a social construction?: The contribution of the physical environment to sense of place. *Society and Natural Resources*, *16*(8), 671–685. https://doi.org/10.1080/08941920309189

Stone, M. J., & Petrick, J. F. (2013). The Educational Benefits of Travel Experiences: A Literature Review. *Journal of Travel Research*, *52*(6), 731–744. https://doi.org/10.1177/0047287513500588

Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. CA: Sage.

Taheri, B., Olya, H., Ali, F., & Gannon, M. J. (2020). Understanding the Influence of Airport Servicescape on Traveler Dissatisfaction and Misbehavior. *Journal of Travel Research*, *59*(6), 1008–1028. https://doi.org/10.1177/0047287519877257

The Telegraph, T. (2024). *The world's most frustrating airports, according to Telegraph writers*. https://www.telegraph.co.uk/travel/comment/frustrating-airports-madrid-barajas-jeremy-clarkson/

The Times, T. (2024). *I have flown into hundres of airports and this is the world's worst*. https://www.thetimes.com/travel/advice/ive-flown-into-hundreds-of-airports-and-this-is-the-worlds-worst-gmcbt59x7

Themistocleous, C., Pagiaslis, A., Smith, A., & Wagner, C. (2019). A comparison of scale attributes between interval-valued and semantic differential scales. *International Journal of Market Research*, *61*(1), 394–407. https://doi.org/10.1177/1470785319831227

Toulmin, S. (2003). *The uses of argument* (Second ed.). Cambridge University Press.

Tuan, Y.-F. (1977). *Space and Place: The Perspective of Experience*. University of Minnesota Press. https://doi.org/10.1017/CBO9781107415324.004

Tubillejas-Andrés, B., Cervera-Taulet, A., & Calderón García, H. (2020). How emotional response mediates servicescape impact on post consumption outcomes: An application to opera events. *Tourism Management Perspectives*, *34*(June 2019), 100660. https://doi.org/10.1016/j.tmp.2020.100660

Turley, L. W., & Milliman, R. E. (2000). Atmospheric effects on shopping behavior: A review of the experimental evidence. *Journal of Business Research*, *49*(2), 193–211. https://doi.org/10.1016/S0148-2963(99)00010-7

Turley, M., & Milliman, R. E. (2000). Atmospheric Effects on Shopping Behavior: A Review of the Experimental Evidence. *Journal of Business Research*, *49*(2), 193–211.

Upton, D. (1995). Flexibility as process mobility: the management of plant capabilities for quick response manufacturing. *Journal of Operations Management*, *12*(3–4), 205–224.

Urry, J., Elliott, A., Radford, D., & Pitt, N. (2016). Globalisations utopia? On airport atmospherics. *Emotion, Space and Society*, *19*, 13–20. https://doi.org/10.1016/j.emospa.2016.03.003

Valdez, P., & Mehrabian, A. (1994). Effects of Color on Emotions. *Journal of Experimental Psychology: General*, *123*(4), 394–409. https://doi.org/10.1037/0096-3445.123.4.394

Van Oel, C. J., & Van den Berkhof, F. W. D. (2013). Consumer preferences in the design of airport passenger areas. *Journal of Environmental Psychology*, *36*, 280–290. https://doi.org/10.1016/j.jenvp.2013.08.005

Vargo, S. L., & Lusch, R. F. (2004). Evolving to a new dominant logic for marketing.

Journal of Marketing, *68*(1), 1–17.

Vargo, S. L., & Lusch, R. F. (2017). Service-dominant logic 2025. *International Journal of Research in Marketing*, *34*(1), 46–67.

Venter de Villiers, M., Visnenza, A., & Phiri, N. (2018). Importance of location and product assortment on flea market loyalty. *Service Industries Journal*, *38*(11–12), 650–668. https://doi.org/10.1080/02642069.2017.1410541

Vilnai-Yavetz, I., Gilboa, S., & Mitchell, V. (2021). Experiencing atmospherics: The moderating effect of mall experiences on the impact of individual store atmospherics on spending behavior and mall loyalty. *Journal of Retailing and Consumer Services*, *63*(August), 102704. https://doi.org/10.1016/j.jretconser.2021.102704

Volgger, M. (2020). Staging genius loci: Atmospheric interventions in tourism destinations. *Advances in Culture, Tourism and Hospitality Research*, *16*, 139–151. https://doi.org/10.1108/S1871-317320190000016016

Vukadin, A., Wongkitrungrueng, A., & Assarut, N. (2018). When art meets mall: impact on shopper responses. *Journal of Product and Brand Management*, *27*(3), 277–293. https://doi.org/10.1108/JPBM-01-2017-1406

Vygotski, L. S. (1978). *Mind in society : the development of higher psychological processes.* (M. Cole, V. John-Steiner, S. Scribner, & E. Souberman (eds.)). Harvard University Press.

Wang, N. (1999). Rethinking authenticity in tourism experience. *Annals of Tourism Research*, *26*(2), 349–370.

Wang, Y. J., Minor, M. S., & Wei, J. (2011). Aesthetics and the online shopping environment: Understanding consumer responses. *Journal of Retailing*, *87*(1), 46–58. https://doi.org/10.1016/j.jretai.2010.09.002

Wattanacharoensil, W., Fakfare, P., & Graham, A. (2021). Airportscape and its effect on airport sense of place and destination image perception. *Tourism Review*, *May*. https://doi.org/10.1108/TR-01-2021-0036

Wattanacharoensil, W., Schuckert, M., & Graham, A. (2016). An Airport Experience Framework from a Tourism Perspective. *Transport Reviews*, *36*(3), 318–340.

https://doi.org/10.1080/01441647.2015.1077287

Wattanacharoensil, W., Schuckert, M., Graham, A., & Dean, A. (2017). An analysis of the airport experience from an air traveler perspective. *Journal of Hospitality and Tourism Management*, *32*, 124–135. https://doi.org/10.1016/j.jhtm.2017.06.003

Weick, K. E., & Roberts, K. H. (1993). Collective Mind in Organizations : Heedful Interrelating on Flight Decks Author (s): Karl E . Weick and Karlene H . Roberts Source : Administrative Science Quarterly , Vol . 38 , No . 3 (Sep ., 1993), pp . 357-381 Published by : Sage Publications , In. *Administrative Science Quarterly*, *38*(3), 357–381.

WHO, W. H. O. (2022). *WHO highlights urgent need to transform mental health and mental health care*. https://www.who.int/news/item/17-06-2022-who-highlights-urgent-need-to-transform-mental-health-and-mental-health-care

Wineman, J. D. (1982). Office Design And Evaluation An Overview. *Evironment and Behavior*, *14*, 271–298.

Wörfel, P., Frentz, F., & Tautu, C. (2022). Marketing comes to its senses: a bibliometric review and integrated framework of sensory experience in marketing. *European Journal of Marketing*, *56*(3), 704–737. https://doi.org/10.1108/EJM-07-2020-0510

Wu, Y., Gu, R., Yang, Q., & Luo, Y. (2019). How Do Amusement, Anger, and Fear Influence Heart Rate and Heart Rate Variability? *Frontiers in Neuroscience*, *13*(490153).

Yani-de-Soriano, M. M., & Foxall, G. R. (2006). The emotional power of place: The fall and rise of dominance in retail research. *Journal of Retailing and Consumer Services*, *13*(6), 403–416. https://doi.org/10.1016/j.jretconser.2006.02.007

Yerimou, P., & Panigyrakis, G. (2020). The role of atmospherics as an antecedent of Airport and Country Image: A Comparative Study. *Global Marketing Conference*.

Yerimou, P., Panigyrakis, G. G., & Themistocleous, C. (2022a). The role of airport experience on destination revisit during Covid-19 pandemic. *26th International Corporate and Marketing Communications Conference*.

Yerimou, P., Panigyrakis, G., & Themistocleous, C. (2022b). Is Airport Experience a Critical Antecedent for Destination Revisit? The Role of Environment in the

Covid-19 Era. *Digital Technologies in Light of Covid-19 Conference Proceedings*, *April*, 111–125.

Yerimou, P., & Themistocleous, C. (2023). Airport Environment And Its Influence On Traveller Emotions, Perceived Quality And Revisit. In F. Kerrigan (Ed.), *Proceedings of Academy of Marketing 2023 Annual Conference and Doctoral Colloquium: From Revolution to Revolutions* (pp. 210–211).

Yerimou, P., & Themistocleous, C. (2024a). (Re)Defining Airport Experience: A New Framework Proposition. In A. Zarkada (Ed.), *Marketing Solutions to the Challenges of a VUCA Environment*. Springer.

Yerimou, P., & Themistocleous, C. (2024b). Airportscape And Its Effects On Emotions And Satisfaction: The Moderating Roles Of Sense Of Place And Environmental Responsiveness. In C. Strong, C. Bosangit, N. Koenig-Lewis, Z. Lee, O. Moldes Andres, & E. Rosier (Eds.), *Proceedings of Academy of Marketing 2024 Annual Conference and Doctoral Colloquium: Marketing: Fusing resilience and power for public value – igniting marketing's social spirit*.

Yerimou, P., Themistocleous, C., & Panigyrakis, G. (2022). Does sense of place matter? Investigating the role of airport atmospherics on destination revisit. *Tourism, Hospitality & Events Innovation and Resilience during Uncertainty Conference Proceedings*, 80–82.

Yoon, S. J. (2013). Antecedents and consequences of in-store experiences based on an experiential typology. *European Journal of Marketing*, *47*(5), 693–714. https://doi.org/10.1108/03090561311306660

Yoon, S., & Park, J. E. (2018). Tests of in-store experience and socially embedded measures as predictors of retail store loyalty. *Journal of Retailing and Consumer Services*, *45*(August 2017), 111–119. https://doi.org/10.1016/j.jretconser.2018.08.010

Zare, S., & Ye, I. Q. (2023). Contested tourists' border-crossing experiences. *Annals of Tourism Research*, *100*, 103571. https://doi.org/10.1016/j.annals.2023.103571

9 APPENDIX I

Tables and Figures

9.1 The Analysis Continuum

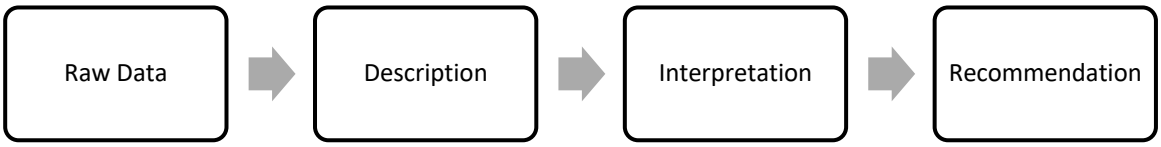

Figure 20 The Analysis Continuum (Krueger, 1997, p. 27)

9.2 Sampling days and hours of Study 2b

Day	Time
Monday	10:00 – 14:00
Tuesday	10:00 – 14:00
Wednesday	10:00 – 14:00
Thursday	10:00 – 14:00
Friday	10:00 – 14:00
Saturday	09:00 – 12: 00

Table 24 Sampling days and hours

9.3 Data Analysis Process

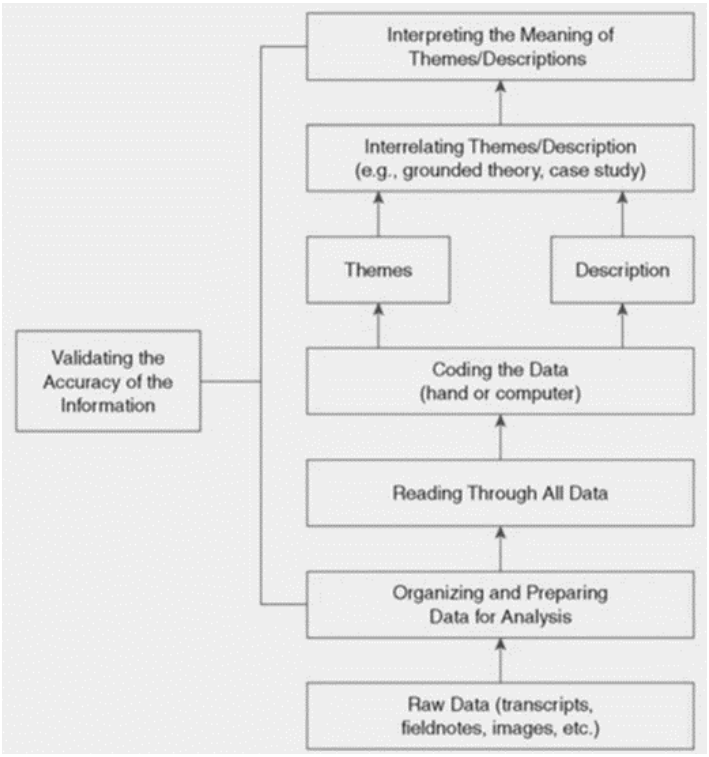

Figure 21 Data Analysis Process (Creswell, 2009, p. 185)

10 APPENTIX II

Questionnaires and Interview Protocols

10.1 Survey Questionnaire of Study 1a

THE INFLUENCE OF AIRPORT ENVIRONMENTAL STIMULI ON AIRPORT IMAGE

Thank you for your interest in participating in this Ph.D. survey.

In this survey, you will be asked for your experience evaluations towards the latest airport you have visited. No personal or sensitive information will be collected. This survey takes no more than 10 minutes of your time. Your answers will be completely anonymous and all the data will be collected and statistically analysed, with the results being used only for the purposes of academic research. There are no reasonably expected risks or inconveniences from participating.

If you agree to participate, you will have the opportunity to express your views, while also contributing to improvement in this area of airport environmental stimuli and their influence on destination. Your participation is voluntary. You have the right to refuse to participate or withdraw at any point, even after your consent.

If you have any questions or comments, you can contact the *Ph.D. Candidate Pantelitsa Yerimou*, Cyprus University of Technology, on .

Thank you in advance for your time and effort.

PART I – AIRPORT ENVIRONMENT

All of the questions below relate to your experience at the **host country's airport** which is the airport you have travelled to. For example, if you travelled to Heathrow airport for this travel, then your host country's airport is Heathrow.

Q1. Within the last month, which airport of your home country did you travel from?

.....

Q2. Which airport of the host-country did you travel to?

.....

Q3. The following statements refer to physical-related factors of the airport environment. With reference to your host country airport you have stated before, please indicate the degree of your disagreement/agreement with each of the following statements by circling one of the seven alternatives (where 1 = strongly disagree and 7 = strongly agree).

Code	Statement description	Strongly Disagree						Strongly Agree
AMB 1	The colour schemes were attractive	1	2	3	4	5	6	7
AMB 2	The architecture was appealing	1	2	3	4	5	6	7
AMB 3	The brightness was welcoming	1	2	3	4	5	6	7

Code	Statement Description	Strongly Disagree						Strongly Agree
SIG1	The airport's signs clearly directed me to parking services	1	2	3	4	5	6	7
SIG2	The airport's signs clearly directed me to terminals	1	2	3	4	5	6	7
SIG3	Layout was properly designed to cater passengers with special needs	1	2	3	4	5	6	7
SIG4	Well-known retail and dining options were available	1	2	3	4	5	6	7
SIG5	Layout was properly managed to avoid passenger crowding	1	2	3	4	5	6	7
SIG6	The signs and electronic displays provide information accurately and clearly	1	2	3	4	5	6	7
SIG7	The airport's signs clearly directed me to ATM services	1	2	3	4	5	6	7
SIG8	Baggage trolleys were available and conveniently located	1	2	3	4	5	6	7
FUN1	The electronic facilities were informative	1	2	3	4	5	6	7
FUN2	There were adequate power sockets for charging devices	1	2	3	4	5	6	7
FUN3	The mobility services were properly working	1	2	3	4	5	6	7
FUN4	There was comfortable and spacious seating in waiting areas	1	2	3	4	5	6	7
CLE1	Restrooms and bathrooms were kept clean	1	2	3	4	5	6	7
CLE2	Retail, dining and entertainment were kept clean	1	2	3	4	5	6	7
CLE3	Walkways, exits and baggage claim areas were kept clean	1	2	3	4	5	6	7

PART III – EVALUATIONS

Q4. The following statements refer to your evaluations of your host country's airport, interms of image. With reference to your host country airport, you have stated before, please indicate the degree of your disagreement/agreement with each of the following statements by circling one of the seven alternatives (where 1 = strongly disagreeand 7 = strongly agree).

Code	Statement description	Strongly Disagree						Strongly Agree
IMG1	I have a favourable image of the airport	1	2	3	4	5	6	7
IMG2	The atmosphere of the airport was excellent	1	2	3	4	5	6	7
IMG3	The airport gave a sense of friendliness	1	2	3	4	5	6	7

IMG4	The overall image of the airport was satisfactory	1 2 3 4 5 6 7

PART IV – SENSE OF PLACE

Q6. The following statements relate to national characteristics your host country's airport reflect or not. With reference toyour host country airport, you have stated before, please indicate the degree of your disagreement/agreement with each of the following statements by circling one of the sevenalternatives (where 1 = strongly disagree and 7 = strongly agree).

SOP1	The airport reflected the national identity of my homecountry	1 2 3 4 5 6 7
SOP2	The interior as well as exterior of the airport were designed using the country's distinctive character	1 2 3 4 5 6 7
SOP3	The uniform of customer service's staff was designed based on my home country's distinctive character (artand design)	1 2 3 4 5 6 7
SOP4	I could 'feel' my home country while in the airport	1 2 3 4 5 6 7
SOP5	My country's 'flavors' could be sensed almost everywhere in the airport	1 2 3 4 5 6 7

PART VI – DEMOGRAPHICS AND TRAVELLING

Q7. In this final section, we would like to have some information about your demographic andtravel profile.

Gender	
GEN1	□ Female
GEN2	□ Male
Age	
AGE1	□ 18-25
AGE2	□ 26-35
AGE3	□ 36-45
AGE4	□ 46-55
AGE5	□ More than 56

Education **“What level of education have you reached?”**	
EDU1	□ High School Graduate
EDU2	□ College Graduate (diploma)
EDU3	□ Undergraduate (bachelor’s degree)
EDU4	□ Postgraduate (master’s degree)
EDU5	□ Ph.D. (philosophy’s degree)
EDU6	□ Other
Ethnicity	
ETH1	□ European
ETH2	□ American
ETH3	□ Asian
ETH4	□ Other
Travel Purpose	
TRP1	□ Pleasure/Relaxing
TRP2	□ Visiting friends and relatives
TRP3	□ Education/Research
TRP4	□ Volunteering
TRP5	□ Business
TRP6	□ Sightseeing/Environmental
TRP7	□ Other

Duration of Stay	
DUR1	□ Up to a week
DUR2	□ Up to 2 weeks
DUR3	□ Up to 1 month
DUR4	□ Up to 2 months
DUR5	□ 3-6 months
DUR6	□ 7-9 months
DUR7	□ 10-12 months
DUR8	□ More than a year
Travel Frequency	
FRE1	□ 0-2 in a year
FRE2	□ 3-5 trips in a year
FRE3	□ More than 5 trips in a year

- THANK YOU VERY MUCH FOR YOUR PARTICIPATION –

10.2 Focus Group Protocol of Study 1b

Focus Group Interview Protocol

with Larnaca's airport executives

Meeting Data	Participant Data
Date: Wednesday, 14.07.21 Start Time: 13:40 Meeting Location: Verengaria Conference Room, Hermes Airport, Larnaca Duration Time: 90' (15:10)	No. Participants Attended: 4 (excl. researcher) Job Classifications: - Marketing and Communications Director [1] - Marketing and Communications Manager [1] - Senior Marketing Communications Officer [1] - Marketing Specialist [1]

Introduction

Introduce myself, educational background, provide CV, conferences attended.

Purpose of the Interview

There is a constant development in regards to the airports atmosphere/environment which raises several challenges regarding the experience of the visitors and the image they form. The importance of the sense of place has also been seen (sense of place, which is the new project of Larnaca airport), and how this differentiates the impressions of the visitors. That is why the present study examines both the airport and visitors' side of the issue…

Research Benefits

Explain that results will help practitioners to…

- ✓ Understand how the airport environment is evaluated by visitors
- ✓ Taking into account the importance of the sense of place can help the airport authorities to evaluate, correct, redesign the airport environment
- ✓ The link between the image of the airport and the country will intensify efforts to develop strategies for communicating favorable images at airports about the country
- ✓ Make necessary changes that will occur based on results to enhance the experience of visitors

Personal Data

- Names will not be used
- Consent for notes during the discussion

Introductory part (Ice breaker) Today, the expectations and experiences of visitors are of utmost importance. We are in a global transition of cultures, differentiation is important. Q: There is a perception that today airports are lifeless. They were lost in the utopia of globalization. Do you agree with this?
Impression The airport is the first and last impression and contact that visitors have with a country. Q: First, what impression do you, through the airport environment, want to give to visitors? Q: Do you follow this impression? Q: When it comes to the expectations of visitors, do you monitor them?
Experience/Feelings Q: Have you planned the feelings you want to convey to the visitors? (e.g. Cyprus is hospitable, it is friendly ..) Q: In the reality that you know and see, are you succeeding?

Q: Do you know what visitors experience at Larnaca airport?
Sense of place Today we also talk about the marketing of places & sense of place. The importance, that is, of having an identity in a space. Q: Do you think that our national identity and in general our culture is reflected through the atmosphere of the airport? Even from the surrounding area... We are not saying to act like a museum of history and culture... Q: Do you think it is something important? That is, a visitor can distinguish the country he is in while he is at the airport.
Image Q: What image do you think you convey to visitors? Are you watching her? Q: Do you think the image of the airport and the image visitors have of a country are interrelated? Q: Is this the image you want to communicate?
What should you... Q: What image do you think you should give? Q: What do you think you should shape in your strategy? Final comments….. Thanks….

10.3 Survey Questionnaire of Study 2a

GROUNDED IN THE AIRPORT: UNDERSTANDING THE LINKAGE OF PERCEIVEDQUALITY, EMOTIONS, AND BEHAVIOURAL INTENTIONS

The purpose of this study is to provide an understanding of the influence of airports' environments on travellers' internal responses. Specifically, the questionnaire is divided into four parts: the *first* refers to physical and human-related factors of the airport environment; the *second* refers to the internal responses of travellers in terms of emotions; the *third* investigates the travellers' evaluations towards their home-country airport in terms of satisfaction; the *fourth* refers to their environmental responsiveness and sense of place; and the final part seeks information on the individuals' demographic and travel profile.

We would like to thank you for agreeing to participate in this study and would greatly appreciate it if we could have your opinion on all items in the questionnaire as accurately and completely as possible. Please note that the results will help to improve our knowledge in thisimportant area.

PART I – AIRPORT ENVIRONMENT

All of the questions below relate to your experience at the **home country's airport** which is the airport you are travelling from. For example, if you used Heathrow airport for this travel, then your home country's airport is Heathrow. Please ignore transition flights as we are interested in your experience at your home country's airport.

Q1. From which airport are you travelling from? (please indicate the airport of your homecountry *i.e. Heathrow airport*) .....
Q2. The following statements refer to physical and human-related factors of the airport environment. With reference to your <u>home country airport</u> you have stated before, please indicate the degree of your disagreement/agreement with each of the following statements by circling one of the seven alternatives (where 1 = strongly disagree and 7 = strongly agree).

Code	Statement description	Strongly Disagree						Strongly Agree
AMB 1	The temperature within the airport was comfortable	1	2	3	4	5	6	7
AMB 2	The scent (odour/aroma) of this airport was pleasing	1	2	3	4	5	6	7
AMB 3	The music played in this airport was appropriate	1	2	3	4	5	6	7
AMB 4	The level of noise at this airport was appropriate	1	2	3	4	5	6	7
AMB 5	The colours used in this airport created a pleasantatmosphere	1	2	3	4	5	6	7

Code	Statement Description	Strongly Disagree						Strongly Agree
LAY1	Restrooms and bathrooms in the airport were keptclean	1	2	3	4	5	6	7
LAY2	This airport provided comfortable seating	1	2	3	4	5	6	7
LAY3	Layout was properly managed to avoid passenger crowding	1	2	3	4	5	6	7
LAY4	The airport had good availability of restaurants, cafes and bars	1	2	3	4	5	6	7
LAY5	The airport provided good Internet/Wi-Fi connectivity	1	2	3	4	5	6	7
LAY6	The signs used at the airport were helpful to me	1	2	3	4	5	6	7
LAY7	Clarity of the airport's signs and symbols was adequate	1	2	3	4	5	6	7
EMP1	I was satisfied with the airport's employees' ability to help me	1	2	3	4	5	6	7
EMP2	The airport employees behaved in a manner that I found acceptable	1	2	3	4	5	6	7
EMP3	Airport employees seemed knowledgeable about by questions or concerns	1	2	3	4	5	6	7
EMP4	The employees gave me a good reason to trust them	1	2	3	4	5	6	7
EMP5	The airport's employees satisfied my needs	1	2	3	4	5	6	7
EMP6	I was satisfied with the way airport employees treated me	1	2	3	4	5	6	7
EMP7	The Check-in process was efficient	1	2	3	4	5	6	7
EMP8	The self-check-in kiosks were appropriately designed	1	2	3	4	5	6	7
EMP9	Check-in Staff was helpful, friendly, and courteous	1	2	3	4	5	6	7
SAF1	The airport I attended complied with the necessary security measures to guarantee the safety of the travellers	1	2	3	4	5	6	7
SAF2	The airport's security services made me feel safe and secured	1	2	3	4	5	6	7
SAF3	The airport's security was able to conduct the passport controls within an acceptable waiting time	1	2	3	4	5	6	7
SAF4	The airport's security was able to proceed with the luggage x-ray within an acceptable waiting time	1	2	3	4	5	6	7

PART II – EMOTIONS

Q3. The following statements refer to your internal responses in terms of emotions of your home county airport. With reference to your home country airport, please circle what best describes your situation.

Code	Statement description starting with: ***While at the airport I felt…***	Strongly Disagree Strongly Agree
PLE1	Happy	1 2 3 4 5 6 7
PLE2	Bored	1 2 3 4 5 6 7
PLE3	Unsatisfied	1 2 3 4 5 6 7
PLE4	Pleased	1 2 3 4 5 6 7
PLE5	Delighted	1 2 3 4 5 6 7
ARO1	Excited	1 2 3 4 5 6 7
ARO2	Energetic	1 2 3 4 5 6 7
ARO3	Calm	1 2 3 4 5 6 7
ARO4	Nervous	1 2 3 4 5 6 7
ARO5	Aroused/Awake	1 2 3 4 5 6 7

PART III – EVALUATIONS

Q4. The following statements refer to your evaluations of your home country's airport, interms of satisfaction. With reference to your home country airport, you have stated before, please indicate the degree of your disagreement/agreement with each of the following statements by circling one of the seven alternatives (where 1 = strongly disagreeand 7 = strongly agree).

Code	Statement description	Strongly Disagree Strongly Agree
SAT1	I think I made the right decision by using this airport	1 2 3 4 5 6 7
SAT2	My experience expectations have been met by thisairport	1 2 3 4 5 6 7
SAT3	I am generally happy with the service provided by this airport	1 2 3 4 5 6 7

PART IV – ENVIRONMENTAL RESPONSIVENESS AND SENSE OF PLACE

Q6. The following statements relate to national characteristics your home country's airport reflect or not, and the degree of your responsiveness towards the airport. With reference toyour home country airport, you have stated before, please indicate the degree of your disagreement/agreement with each of the following statements by circling one of the sevenalternatives (where 1 = strongly disagree and 7 = strongly agree).

SOP1	The airport reflected the national identity of my homecountry	1 2 3 4 5 6 7
SOP2	The interior as well as exterior of the airport were designed using the country's distinctive character	1 2 3 4 5 6 7
SOP3	The uniform of customer service's staff was designed based on my home country's distinctive character (artand design)	1 2 3 4 5 6 7
SOP4	I could 'feel' my home country while in the airport	1 2 3 4 5 6 7
SOP5	My country's 'flavors' could be sensed almost everywhere in the airport	1 2 3 4 5 6 7
RSV1	I pay attention to the airports' environment	1 2 3 4 5 6 7
RSV2	Things like noise, colours and lighting make a differenceto me in the airport	1 2 3 4 5 6 7
RSV3	Airport decoration influences me	1 2 3 4 5 6 7
RSV4	I pay attention to the layout of the airport	1 2 3 4 5 6 7
RSV5	The airport employees' behaviour makes a difference tome	1 2 3 4 5 6 7

PART VI – DEMOGRAPHICS AND TRAVELLING CHARACTERISTICS

Q7. In this final section, we would like to have some information about your demographic andtravel profile.

Gender		
GEN1	□	Female
GEN2	□	Male
GEN3	□	Other
Age		
AGE1	□	18-24
AGE2	□	25-29

AGE3	□	30-34
AGE4	□	35-39
AGE5	□	40-44
AGE6	□	45-49
AGE7	□	50-54

AGE8	□	55-59
AGE9	□	60-64
AGE10	□	More than 65
Education **"What level of education have you reached?"**		
EDU1	□	High School Graduate
EDU2	□	College Graduate (diploma)
EDU3	□	Undergraduate (bachelor's degree)
EDU4	□	Postgraduate (master's degree)
EDU5	□	Ph.D. (philosophy's degree)
EDU6	□	Other
Household Annual Gross Income In Euros €		
INC1	□	€0-20,000
INC2	□	€20,001-€40,000
INC3	□	€40,001-€60,000
INC4	□	€60,001-€80,000
INC5	□	€80,001-€100,000
INC6	□	More than €100,000
Ethnicity		
ETH1	□	European
ETH2	□	Asian (Chinese)
ETH3	□	Asian (Indian)
ETH4	□	Middle Eastern
ETH5	□	Australian
ETH6	□	American
ETH7	□	Hispanic/Latin
ETH8	□	Pacific Islanders
ETH9	□	African
ETH10	□	Other
Travel Purpose		
TRP1	□	Pleasure/Relaxing
TRP2	□	Visiting friends and relatives
TRP3	□	Education/Research
TRP4	□	Volunteering
TRP5	□	Business
TRP6	□	Sightseeing/Environmental

TRP6	□ Other

Duration of Stay		
DUR1	□	Up to a week
DUR2	□	Up to 2 weeks
DUR3	□	Up to 1 month
DUR4	□	Up to 2 months
DUR5	□	3-6 months
DUR6	□	7-9 months
DUR7	□	10-12 months
DUR8	□	More than a year
Travel Frequency		
FRE1	□	1-2 in a year
FRE2	□	3-5 trips in a year
FRE3	□	6-9 in a year
FRE4	□	More than 10 in a year

- THANK YOU VERY MUCH FOR YOUR PARTICIPATION –

10.4 Interview protocol of Study 2b

Semi-Structured Interview Protocol

Interviewer: Pantelitsa Yerimou, PhD Candidate

Institution: Cyprus University of Technology
Research Focus: International travellers' evaluations of their home country airport
Interview Dates: May 2023 – October 2023
Interview Locations: Key touristic spots in Cyprus

---

1. Introduction and Purpose

Introduction Script:

Hello, my name is Pantelitsa Yerimou, and I am a PhD candidate at the Cyprus University of Technology. Thank you for taking the time to participate in this interview. The aim of this discussion is to understand how international travellers like yourself evaluate their home country airport. We will cover topics ranging from your general impressions of the airport environment, the emotional aspects of your experience, and how the airport might reflect your country's identity.

This interview will last around 30–60 minutes. Your responses will be anonymous, and you are free to skip any questions or stop the interview at any point. Do I have your permission to record this interview for transcription purposes?

2. Research Objectives

The primary goal of these interviews is to explore the following:

- Travellers' general impressions of their home country airport.
- The impact of physical and human factors on their experience.
- The emotional responses travellers associate with the airport environment.
- The presence and significance of national identity and sense of place within the airport.

3. Interview Questions

Section 1: General Impressions of the Airport Environment

Opening Question: *Can you tell me which airport you consider to be your home country airport?*

Q: What are your overall impressions of your home country airport?

Q: What environmental factors at the airport stand out to you?
(Eg. How do you perceive the airport's atmosphere in terms of noise, decoration, lighting, or other ambient elements?)

Q: How would you describe the cleanliness of your home country airport?

Q: What role do sound and signs play in your airport experience?
(Eg. Is the noise level at the airport comfortable? Are the signs clear and helpful?)

Q: What are your thoughts on the check-in processes and interactions with airport staff?
(Eg. How would you rate the helpfulness and efficiency of the employees? Do you encounter any difficulties at check-in or with customer service?)

Section 2: Emotional Responses to the Airport Environment

Q: How do you feel emotionally when you're at your home country airport?
(Eg. Do you feel excited, anxious, frustrated, or comfortable? Which aspects of the airport contribute to these feelings?)

Q: Can you describe any specific factors at the airport that influence how you feel?
(Eg. Does the airport's design, layout, cleanliness, or noise level have an impact on your mood?)

Q: How do interactions with staff influence your emotions at the airport?
(Eg. Does the service you receive affect your stress level, comfort, or overall mood?)

Section 3: Sense of Place and National Identity

Q: Do you notice any elements at your home country airport that remind you of your national identity or culture?

(Eg. Are there any decorations, architectural features, or symbols that make you feel connected to your country?)

Q: Do you feel that the airport represents your country well? Why or why not?
(Eg. What specific aspects of the airport make it feel distinctly representative of your home country?)

Q: What cultural elements, if any, do you appreciate seeing at the airport?
(Eg. For example, local art, language, food, or traditional symbols? How important are these features to your experience?)

Q: Do you think this sense of national identity at the airport impacts how you feel about traveling through it?
(Eg. Does it make you feel proud, or does it create a stronger sense of connection to your country?)

4. Closing Remarks

Q: Is there anything else about your home country airport that you'd like to share?
(Eg. Are there any additional comments on how the airport could improve or further reflect national identity?)

Q: If you could change one thing about your home country airport, what would it be?
(Eg. This could be related to the environment, staff, services, or cultural representation.)

5. Thankful closing

I much appreciate your time and observations. Your opinions will be rather useful in comprehending the perspective and assessment of home country airports taken by travellers. Please get in touch me should you have any more ideas following the interview. I really value your involvement.

--- END OF PROTOCOL ---