

Shaping the Future: Strategic Redesign and Recommendations for **KLM's Unaccompanied Minor Service**



Malou Irène Nods

Shaping the Future: Strategic Redesign and Recommendations for KLM's Unaccompanied Minor Service

Malou Irène Nods

**Delft University of Technology,
Faculty of Industrial Design Engineering**
Landbergstraat 15, 2628 CE Delft

Project Chair:
Prof.mr.dr.ir. S.C. Santema

Project Mentor:
Ir. C.P.J.M. Kroon

KLM
Amsterdamseweg 55, 1182 GP Amstelveen
Company Supervisors:

Stefania Porozantidou
Customer Journey Manager

Mila Overmars-Ramphal
Ground Handling Standards & Proc. Expert

Malou Irène Nods
Graduate Student - MSc Strategic Product
Design

Amsterdam, January 2025



This Master Thesis is written as the final piece of the MSc Strategic Product Design program at the faculty of Industrial Design Engineering (IDE) at Delft University of Technology, the Netherlands.

Preface

The aviation industry is undergoing transformation as it adapts to evolving passenger needs, technological advancements, and a growing focus on sustainability. Within this context, ensuring the safety, comfort, and satisfaction of travelers becomes increasingly important. For KLM Royal Dutch Airlines, the Unaccompanied Minor (UM) service is a important offering, designed to support young travelers while creating lasting positive experiences. However, like any service, it requires continuous refinement to meet operational challenges and exceed customer expectations.

I chose to focus my thesis on KLM's UM service to contribute to its optimization and alignment with the brand's values. This decision was motivated by my interest in user-centered design and the opportunity to collaborate with a globally renowned airline. Working closely with KLM's Customer Experience department, I explored how the service could be improved to enhance the journey of both minors and their caregivers.

This report captures the insights, findings, and design recommendations that emerged from this project. It includes a vision for the future of the UM service, supported by actionable steps to achieve it. My work aims to inspire KLM to continue prioritizing the needs of its youngest passengers while maintaining operational excellence.

I would like to extend my heartfelt gratitude to KLM and my supervisors from TU Delft for their guidance, support, and encouragement throughout this project. The experience has been invaluable, enriching both my professional and personal development, and has been a rewarding conclusion to my time at TU Delft.

Enjoy reading!

Malou



Summary: Optimizing KLM's Unaccompanied Minor Service

This graduation project investigates KLM's Unaccompanied Minor (UM) service, with the objective of enhancing its effectiveness and alignment with KLM's branding and operational goals. Using the Double Diamond design methodology, the project is structured into four key phases: Discover, Define, Develop, and Deliver.

Discover

Research uncovered key challenges within the current UM service. These include inefficiencies in communication, operational bottlenecks, and user discomfort with existing tools, such as the UM necklace wallet. Insights were gathered from interviews with caregivers and minors, on-site observations at Schiphol Airport, and analysis of customer feedback. Emotion maps, a stakeholder map and provided a clear visualization of the pain points and interactions throughout the UM journey.

Define

Insights from the Discover phase were synthesized into actionable goals to address the identified challenges. These goals included creating a seamless, reassuring experience for minors, improving communication, and ensuring alignment with KLM's brand values. The UM service journey was mapped to highlight specific areas for improvement, laying the foundation for targeted redesigns.

Develop

Solutions were developed to address these challenges, including a redesigned UM necklace wallet featuring new materials and improved visibility of flight details. Enhancements to the Junior Jet Lounge and UM desk were proposed to create a more engaging and child-friendly environment. Additionally, digital tools were designed to streamline caregiver communication and offer real-time tracking of the minor's journey. Visual prototypes and customer journey diagrams were created to illustrate these proposed changes.

Deliver

The proposed solutions were tested with users to validate their effectiveness. The redesigned UM necklace wallet and updated UM desk received positive feedback, improving both usability and customer satisfaction. A Future Roadmap (see visual) was developed to guide the phased implementation of these solutions:

- Short-Term Goals (0–6 months): Launch of the enhanced website, rollout of a redesigned UM wallet, and implementation of an updated AFS UM desk design.
- Medium-Term Goals (6–18 months): Expansion of the Junior Jet Lounge and a unified check-in desk.
- Long-Term Goals (18–36 months): Standardization of UM processes globally and development of an all-digital UM journey.

This roadmap ensures that improvements are implemented strategically, with room for continuous evaluation and refinement based on feedback.

Results and Impact

By addressing the identified challenges and implementing the proposed solutions, this project positions KLM's UM service as a best-in-class offering. The focus on safety, clarity, and user-friendliness aligns with KLM's brand values of care and reliability, fostering trust and loyalty among both minors and caregivers. The phased approach outlined in the roadmap supports sustainable growth and ensures that the service remains adaptable to future needs.

Future Roadmap UM Service

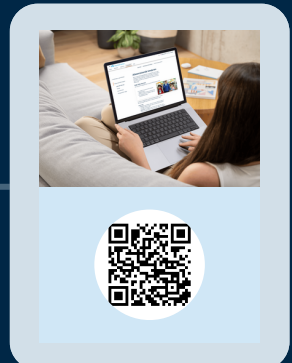
Long-Term Goals (18-36 Months)

3

Long-Term Goals:

Strategic Growth

- Utilize Feedback for Continuous Improvement
- Unified Check-In Desk
- All-Digital UM Journey
- Global Standardization of UM Processes
- Junior Jet Lounge Expansion



Medium-Term Goals (6-18 Months)

2

Medium-Term Goals:

Implementation and Expansion

- Implement Redesigned UM Necklace Wallet
- Upgrade Junior Jet Lounge
- Feedback Collection System



Short-Term Goals (0-6 Months)

1

Short-Term Goals:

Research and Testing

- Launch enhanced website
- Upgrade redesign and test new UM wallet
- Implement AFS UM desk redesign
- Staff training program rollout

Table of content

1 Introduction	9
1.1 Introduction to KLM	10
1.2 Introduction to the Unaccompanied Minor Service	12
1.3 Positioning KLM	14
1.4 The project	19
1.5 Requirements based on Introduction	21
2 Discover	23
2.1 KLM's Unaccompanied Minor Service: Overview and Process	24
2.2 Stakeholder Map and Analysis	26
2.3 Target Groups of the KLM UM Service	28
2.4 Reasons for Unaccompanied Minor Travel	30
2.5 Analysis of Trip Reports KLM	32
2.6 Analysis of Social Cases KLM	33
2.7 UM forms	35
2.8 UM Necklace Wallet	36
2.9 The KLM Unaccompanied Minor Check-In and AFS UM Desk at Schiphol Airport	38
2.10 Trend analysis	41
2.11 Competitive environment	47
2.12 Workshop with KLM and Fontys: Applying Design Thinking	51
2.13 Requirements based on Discover	52
3 Define	55
3.1 Visual Representation of the Unaccompanied Minor Service Process	56
3.2 Establishing the Research Direction	57
3.3 Comparing Findings with Previous Research	60
3.4 Aligning KLM's UM Service with Brand Positioning	62
3.5 Current State of KLM and Its Impact on the UM Service Project	64
3.6 Requirements based on Define	66
3.7 Complete list of requirements for the future roadmap of the UM Service	67
4 Develop	69
4.1 Designing Solutions for the UM Service	70
4.2 Renaming the Service	71
4.3 Redesign of the Website	73
4.4 Redesign of the UM Wallet	76
4.5 Redesign of the KLM Unaccompanied Minor Check-In and AFS UM Desk at Schiphol	83
4.6 Redesign of the Junior Jet Lounge	94
4.7 Education Program Guidelines for Staff (AFS & KLM)	99

5 Deliver	102
5.1 Future Roadmap for KLM's UM Service	103
5.2 Research Recommendations for the Future of KLM's UM Service	106
5.3 Validation & Testing	108
5.4 Results of the UM Wallet Redesign	109
5.5 Results of the AFS UM Desk Redesign	110
5.6 Financial Considerations and Strategic Value of the UM Service	111

6 Conclusion	114
6.1 Summary of Key Findings	115
6.2 Reflection on Limitations and Challenges	115
6.3 Personal Reflection	116
6.4 Final Thoughts and Call to Action	166

References

Chapter 1

I N T R O D U C T I O N

In this graduation project, I will focus on the Unaccompanied Minor (UM) service of KLM Royal Dutch Airlines. This research is conducted from the Customer Experience department at KLM's headquarters. This chapter aims to provide an overview of KLM, elaborate on the UM service, and establish the context of this project.



I N T R O D U C T I O N

1.1 Introduction to KLM

KLM Royal Dutch Airlines, the flag carrier of the Netherlands, is celebrating its 105th anniversary this year, making it the oldest airline still operating under its original name. The core of the KLM Group consists of KLM itself and its subsidiary, KLM Cityhopper. In 2023, KLM transported approximately 30.3 million passengers, with Transavia adding 8.9 million more, bringing the total for the KLM Group to nearly 39.2 million passengers. The group operates from its hub at Amsterdam Schiphol Airport, serving destinations worldwide. KLM employs around 32,000 staff and generated substantial revenues of approximately €12.1 billion in 2023. (Smith et al, 2023)

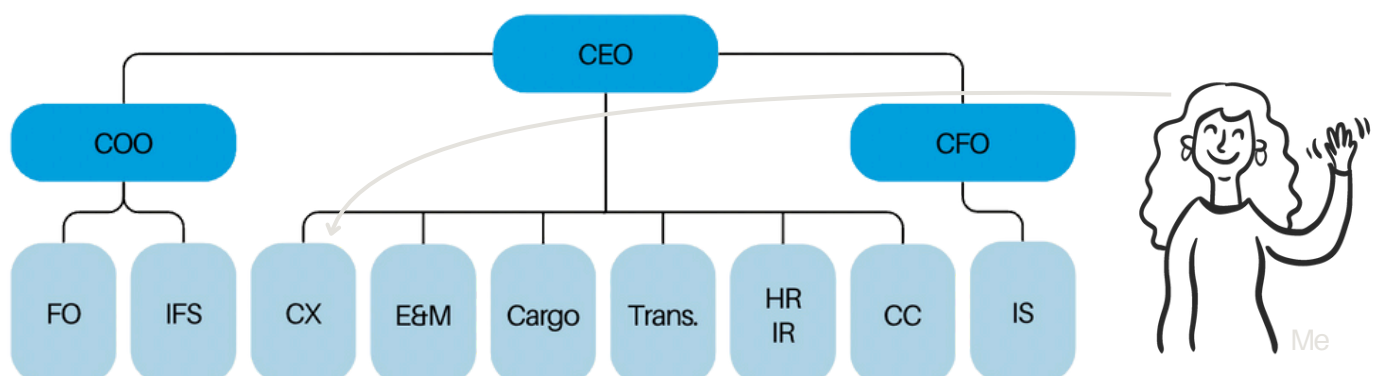
Figure 1
History of KLM. Image provided by KLM (internal source, 2024).



Organizational Structure

KLM's organizational structure is led by CEO Marjan Rintel, who is supported by Managing Director and CFO Bas Brouns, and Managing Director and COO Maarten Stienen. The company is organized into several main departments that drive its operations and strategic goals. These include Flight Operations, Inflight Services, Customer Experience, Engineering & Maintenance, Cargo, Transformation, Human Resources & Industrial Relations, Corporate Center, and Information Services. This structured approach is designed to facilitate smooth coordination and efficient decision-making across the company. The structure is shown in figure 2. This graduation report has been written based on my work experience within the Customer Experience team at KLM's headquarters in Amstelveen.

Figure 2
Organisation structure KLM. Image created by the author (2025).



Network and Partnerships

KLM is part of a complex network, which is detailed in Figure 3. In 2014, KLM and Air France merged to form the largest airline group in Europe, focusing on three core businesses: Passenger Business, Cargo, and Engineering & Maintenance. While both airlines maintain their own identities and brands, they operate through their respective hubs at Amsterdam Schiphol and Paris Charles de Gaulle. Additionally, the Air France-KLM group has established a long-term joint venture with Delta, China Eastern and Virgin Atlantic. This collaboration allows for shared revenues, costs, and risks, enhancing efficiency and network expansion. KLM is also a member of SkyTeam, the world's second-largest airline alliance.

Figure 3
KLM's network. Image created by the author (2025).

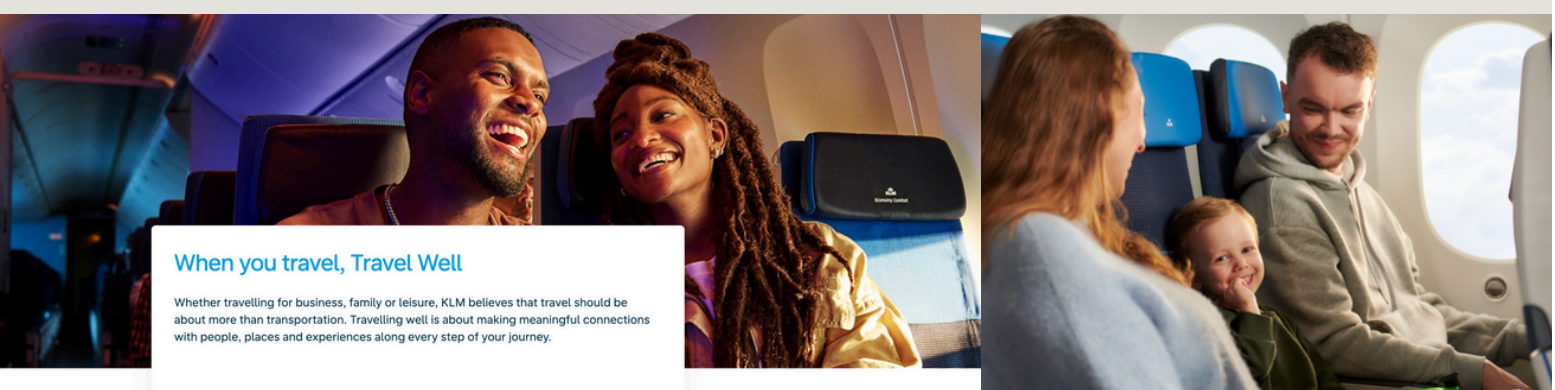


Purpose & Vision

KLM believes that travel should be more than just a means of transportation. Whether traveling for business, visiting family, or exploring for leisure, the airline's vision is to create meaningful connections with people, places, and experiences at every step of the journey. KLM strives to make traveling an enriching experience that transcends simple mobility, focusing on delivering memorable moments and fostering personal connections. In October 2024 they introduced the new campaign: When you travel, Travel Well. (KLM, 2024)

This campaign aligns with KLM's ambition to continually innovate and offer services that cater to the diverse needs and expectations of travelers, ensuring that every journey becomes a valuable and memorable experience.

Figure 4
KLM Campaign October 2024. Image provided by KLM (internal source, 2024).



1.2 Introduction to the Unaccompanied Minor Service

KLM Royal Dutch Airlines provides an Unaccompanied Minor (UM) service, designed to ensure the safety and comfort of children traveling alone. The service is mandatory for children aged 5 to 15 years, while for those aged 15 to 18, it remains optional. This service aims to create a structured and secure environment for young passengers, ensuring peace of mind for both UM's and caregivers throughout the journey.

The UM service offers assistance, guiding children from the check-in counter to their final destination. Staff accompany young travelers during each stage of the journey, providing necessary support at the airport and during the flight. Beyond ensuring safety, the program seeks to make travel an enjoyable experience.

Service portfolio

The Customer Experience (CX) department views the UM service as important for building long-term relationships and enhancing brand reputation. By offering a reliable and compassionate service for young travelers, KLM can create positive early experiences that foster brand loyalty from a young age. (Figure 5)

Importance and Utilization

The Unaccompanied Minor service at KLM is designed to facilitate travel for children who are not accompanied by an adult. The service is significant for families with various needs, such as children traveling between separated or divorced parents, visiting relatives in other countries, or participating in international programs. The usage data reflects the demand for this service, with a growing substantial number of children relying on it annually. Shown in Appendix A. This indicates a continuing and increasing demand among KLM's passengers and highlights the role of the UM service within the airline's operations.

Demand Patterns

An analysis of the data on the Unaccompanied Minor service shown in Appendix A highlights distinct peaks in requests corresponding to school vacation periods. Demand rises notably during Christmas and summer holidays, aligning with common school breaks and indicating that many children travel during these times. These patterns underscore specific periods of high demand, suggesting the need for additional resources and strategic planning during these times. Additionally, data in Appendix A reveals that the service is widely utilized for both direct flights and those involving a transfer.

Figure 5
KLM experience young travelers. Image provided by KLM (internal source, 2024).



Junior Jet Lounge

The Junior Jet Lounge (JJL) is a dedicated area at Amsterdam Schiphol Airport designed specifically for young travelers utilizing KLM's Unaccompanied Minor (UM) service. This facility provides a environment where children can relax and play while waiting for their flights. This space is only used for UM's who have a transfer at Schiphol or who have to wait a long time at Schiphol due to a delay or cancellation.

Equipped with various amenities, the lounge offers activities tailored to children, including games, toys, seating and even a bedroom. The design aims to create an engaging atmosphere, helping to ease any anxiety children may have about traveling alone.

Additionally, the lounge is staffed by personnel from AFS and KLM who can provide assistance and supervision, ensuring that everything goes well and that young travelers feel secure during their time at the airport.

Figure 6

KLM's Junior Jet Lounge at Schiphol Airport. Image provided by KLM (internal source, 2024).



AFS

KLM previously handled the Unaccompanied Minor service at Schiphol Airport internally but has now outsourced this responsibility to AFS (Airport and Flight Services) to improve operational efficiency and reduce costs. AFS is a staffing agency that KLM partners with to support the UM service at Schiphol and within the Junior Jet Lounge. This agency specializes in providing personnel who assist young travelers throughout their journey, focusing on their safety and comfort.

At Schiphol, AFS staff greet children upon their arrival after check-in, guide them through the security process, and accompany them during boarding. They also monitor the children during waiting periods, offering reassurance and addressing any concerns. In the Junior Jet Lounge, AFS personnel oversee activities, ensuring that children are engaged and cared for in a supportive environment.

Caregiver instead of parent

In this research, I will use the term caregiver instead of parent. This choice ensures inclusivity, as not all children are raised by their biological or legal parents. A caregiver can refer to anyone responsible for the well-being of a child, such as grandparents, foster parents, legal guardians, or other adults in a caregiving role. By using this term, the research acknowledges diverse family structures and ensures that all forms of care and support are taken into account.

1.3 Positioning KLM

KLM's Branding

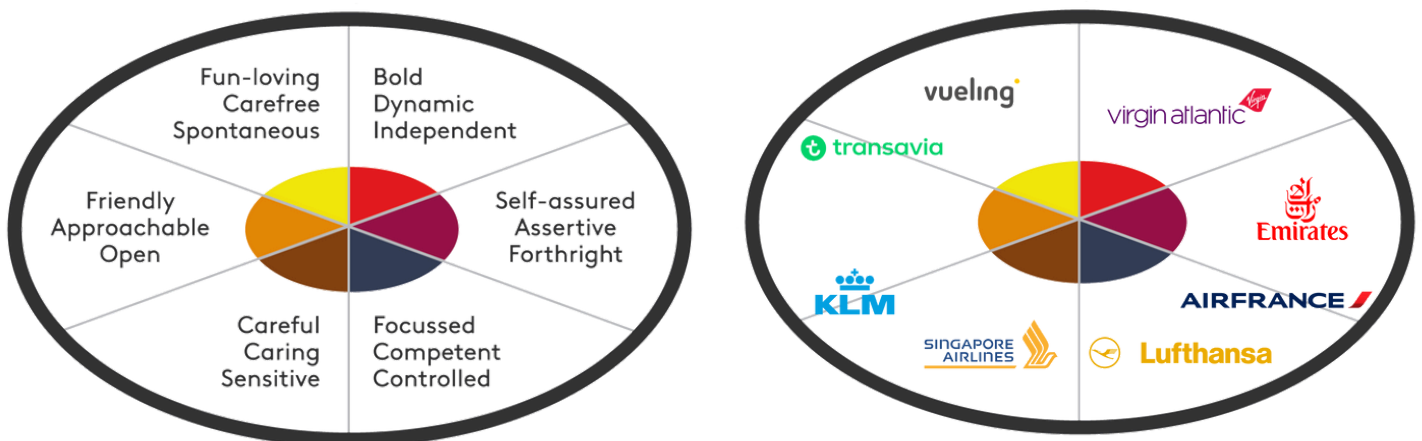
The company's branding and positioning shows what KLM aims to communicate and achieve. For this reason it is important to understand it well. One of the first things that stood out is the notable difference in the ways KLM, Air France, and Transavia operate. Despite being part of the same group, these differences sometimes lead to inefficiencies or complex situations. At first glance, this seemed unusual, but I soon realized that these differences are not coincidental. Instead, they are the result of a deliberate strategy within the collaboration between these airlines.

Reaching Different Audiences

KLM and Air France intentionally focus on different customer groups, which strengthens their partnership. Rather than competing by targeting the same audience, the airlines complement each other by appealing to distinct emotional needs. Transavia further diversifies this approach by positioning itself as a low-cost airline with its unique identity. This strategic differentiation makes sense: a collaboration between airlines serving different markets avoids internal competition and reinforces the group as a whole.

Figure 7
Needscope model. Kantar (n.d.).

The six emotive spaces

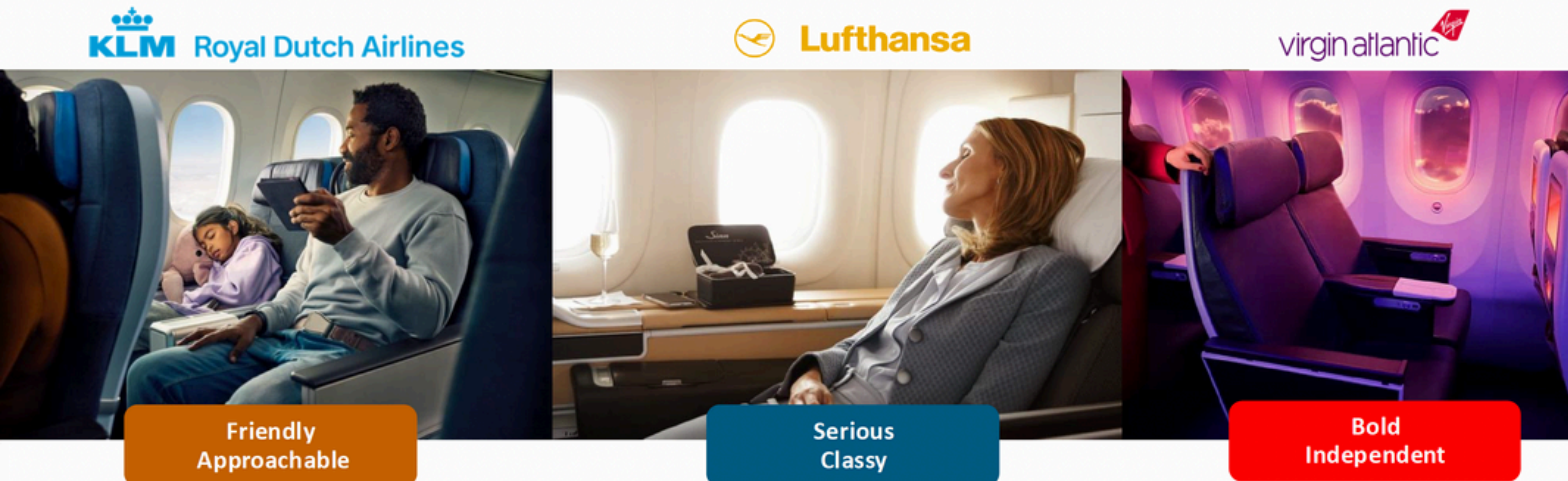


The Needscope Model: Analyzing Brand Positioning

To better understand these differences in focus and identity, I used the Needscope model. (Kantar, (n.d.)) This model divides emotive brand spaces into six archetypes as shown in Figure 7. Within this framework, KLM ideally positions itself on the left side, in the orange-brown space, which represents emotions like friendliness, care, and approachability. In contrast, Air France focuses on the right side, emphasizing emotions like confidence, elegance, and control (purple and dark blue). Transavia adopts yet another strategy by positioning itself in the yellow space at the top left, reflecting playfulness and spontaneity. The figure also shows a number of other airlines that follow a clear placement according to this model. This shows how each airline tries to appeal to a specific group differently than the competitor.

These distinctions are reinforced through each airline's visual and verbal communication. Figure 8 illustrates how the branding of KLM, Lufthansa, and Virgin Atlantic differs significantly, highlighting how branding shapes customers' perceptions and sets expectations.

Figure 8
Visual communication. Image provided by KLM (internal source, 2024).



KLM's Current Perception

Although KLM aspires to position itself within the orange-brown segment of the Needscope model, research reveals that this is not yet reflected in how consumers perceive the brand. (KLM, 2024) Figure 9 shows the current positioning of KLM across different countries. None of the flags currently falls within the desired orange-brown area.

To bridge this gap, KLM is focusing more on projecting emotions like caring, friendly, and open. A recent campaign, 'When you travel, Travel Well,' supports this strategy. Figure 10 showcases visuals from this campaign, which emphasizes warmth and care. For comparison, Figure 11 displays imagery from an Air France campaign, which highlights confidence and control, aligning with their branding.

Figure 9
Current positioning. Image provided by KLM (internal source, 2024).

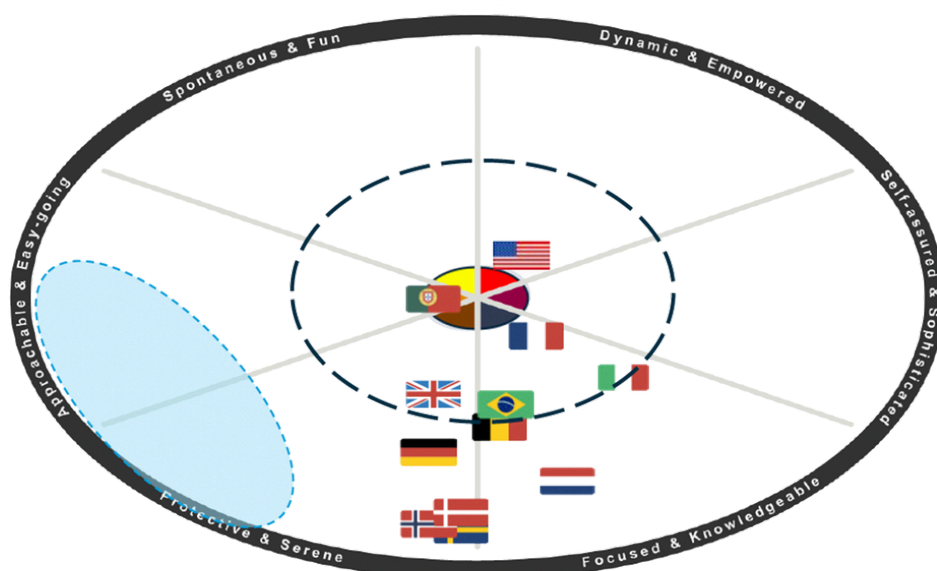



Figure 10
Campaign KLM. Image provided by KLM (internal source, 2024).



Your ticket to new shared memories


Travelling well is not about travelling more, but making the most of every experience. It can help you get closer to someone you love and make new memories together.


Watch the video

Your ticket to feel like a local

Experiencing the local traditions in a new city can turn into unexpected and fun adventures. And a lot of smiles along the way.

Watch the video





Your ticket to more than just a business trip

Business calls might be the new normal. But meeting face-to-face will open doors and create connections you never expected. Who knows what kind of bonds you'll build with your colleagues from abroad?

Watch the video

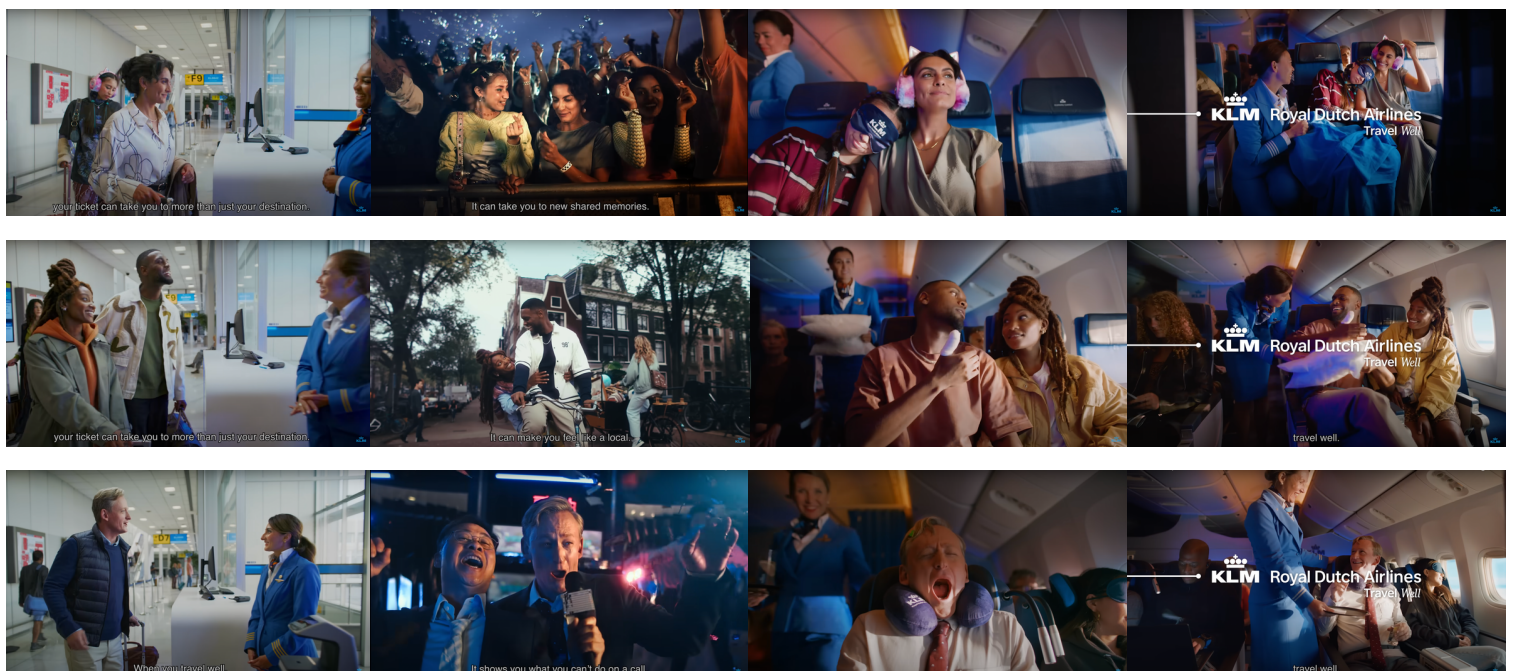
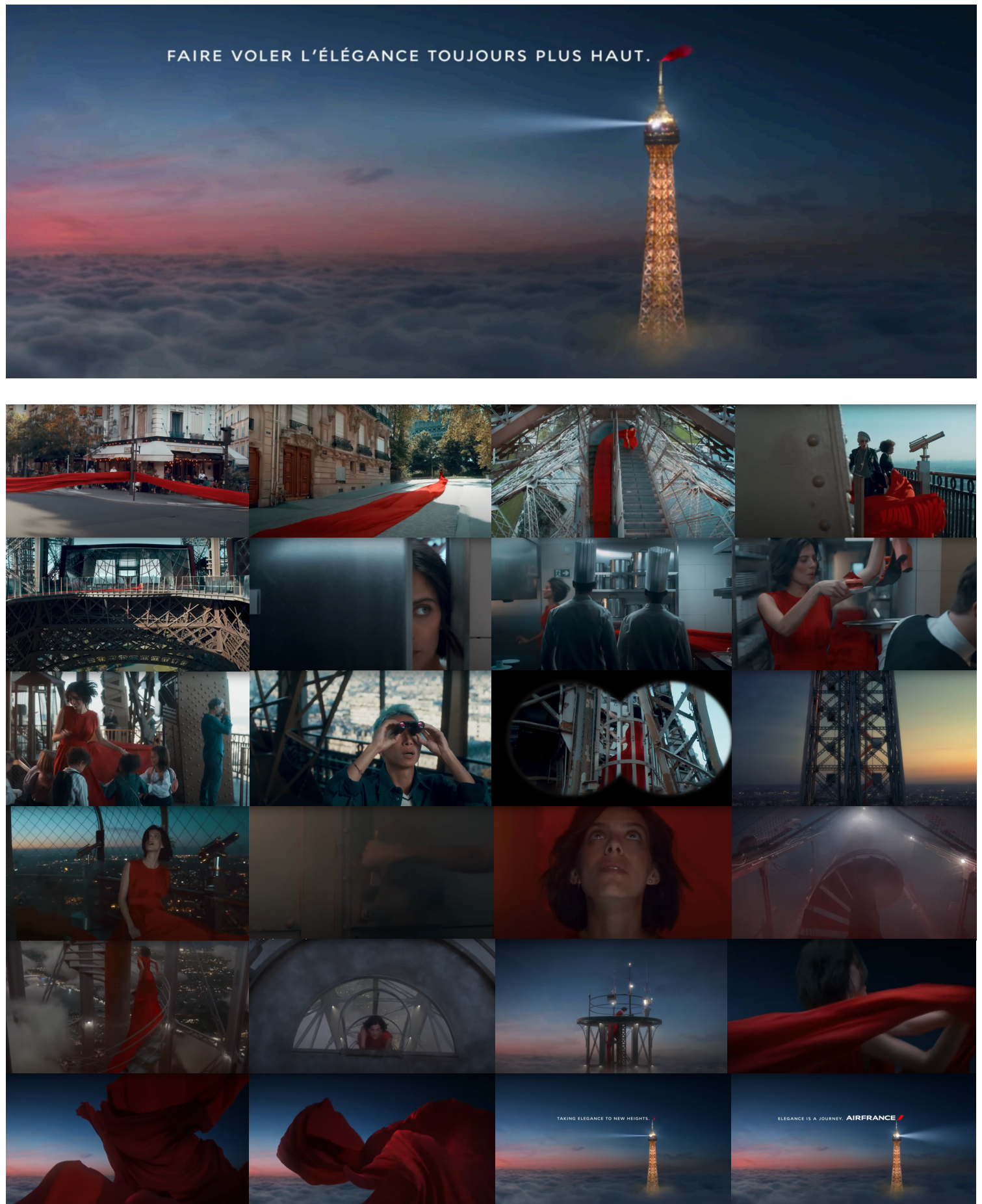


Figure 11
Campaign Air France. Image provided by Air France (internal source, 2024).



Keys to Success: Differentiators and Emotions

In addition to conveying the right emotions, KLM leverages three key differentiators to distinguish itself from other airlines:

- Convenient connections: Offering seamless and efficient transfer options.
- Meaningful interactions: Providing personal and valuable customer experiences.
- Peace of mind: Ensuring a stress-free and relaxed journey.

These differentiators align with the emotional profile of the orange-brown space and strengthen KLM's focus on customer-centricity. They are particularly relevant not only to KLM's overall branding but also to specific services like the Unaccompanied Minor service, which presents a unique opportunity to embody these core values through a caring and reliable experience.

Figure 12

Key differentiators KLM. Image provided by KLM (internal source, 2024).



Key Takeaways

KLM still faces the challenge of moving closer to its desired position in the orange-brown segment. The Needscope model provides valuable insights into how KLM, Air France, and Transavia differentiate themselves and how this strategy contributes to their success. For my research on optimizing the UM service, this means that all recommendations and redesigns must reflect these emotions and key differentiators to ensure the service aligns with customer expectations while reinforcing the airline's brand identity.

1.4 The project

Background and Relevance

The Unaccompanied Minor service offered by KLM is a part of its customer service portfolio, guiding children flying alone. As one of the few airlines offering this service, KLM supports a unique customer base: caregivers as decision-makers and children as end-users. Recognizing its importance, KLM has identified the need to assess the current service to determine whether it fully meets customer and operational demands or requires adjustments moving forward.

Challenges identified include potential inefficiencies and gaps in communication and coordination across key touchpoints, which can lead to confusion for caregivers and operational strain for KLM staff. Clear and consistent communication is needed to provide caregivers and children with a good experience. Furthermore, balancing customer value with operational efficiency and cost-effectiveness remains a strategic priority for KLM.

Given these complexities, this project seeks to explore how the UM service can be optimized to deliver clear and consistent guidance throughout the customer journey, from booking to post-travel reflection. By addressing these challenges, the project aims to enhance customer satisfaction while ensuring operational excellence, positioning the UM service as a valuable offering in KLM's portfolio.

Assignment

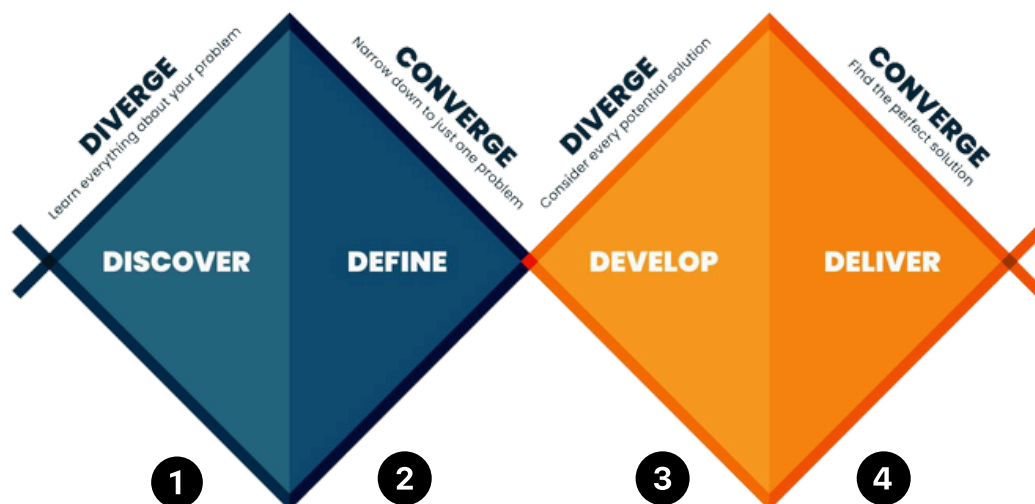
To develop a comprehensive understanding of the KLM Unaccompanied Minor service by mapping the complete journey from the perspectives of all stakeholders. The project aims to deliver actionable recommendations and redesigns to enhance the service, focusing on key areas such as information content, UM necklace wallet usability, educational programs for handling UMs, and operational improvements. Additionally, the project will outline a future roadmap for implementation and identify opportunities for further research to ensure continuous improvement of the UM service.

Approach and Objectives

To carry out this graduation project, the Double Diamond design thinking methodology will be used, combining qualitative and quantitative research techniques. This structured approach includes:

1. **Discover:** Conducting in-depth research through stakeholder interviews, data analysis, and observations to map the complete journey of the Unaccompanied Minor service from the perspectives of all stakeholders. This phase aims to identify pain points, inefficiencies, and unmet needs.
2. **Define:** Synthesizing insights to clearly articulate the problem statement and define actionable areas for improvement. This will focus on enhancing communication, coordination, and operational processes.
3. **Develop:** Ideating and prototyping potential solutions, including redesigning key aspects such as information content, the usability of UM-related products, educational programs for handling UMs, and operational workflows.
4. **Deliver:** Testing, refining, and presenting actionable recommendations and redesigns. This phase will also outline a future roadmap for implementation and identify opportunities for further research to ensure continuous improvement of the UM service.

Figure 13
Double Diamond Design Thinking Method. Design Council (2005)



Design Thinking and the Double Diamond Methodology

The Double Diamond design thinking methodology, illustrated in Figure 13, is a widely recognized framework for problem-solving and innovation. (Design Council, 2005) This approach divides the design process into four distinct phases: Discover, Define, Develop, and Deliver. The model emphasizes both divergent and convergent thinking, encouraging exploration of a broad range of possibilities before narrowing down to actionable solutions.

1. Discover: The first diamond opens up to gather insights, uncover pain points, and explore the broader context of the problem. This ensures that the root causes of issues are thoroughly understood before attempting to solve them.
2. Define: The focus shifts to synthesizing research findings, identifying the core problems, and articulating a clear design challenge. This convergence ensures that the subsequent development efforts are targeted and effective.
3. Develop: This phase involves ideating, prototyping, and testing potential solutions. Divergent thinking is encouraged again to explore a range of creative ideas before refining them.
4. Deliver: The final phase focuses on testing and implementing the most viable solution. Iteration and refinement ensure that the final deliverables meet both user needs and operational requirements.

Why Use the Double Diamond?

The Double Diamond methodology is particularly well-suited for this project due to its structured yet flexible approach. By emphasizing both exploration and focus, it ensures that all stakeholder perspectives are considered while driving towards practical and impactful solutions. For the Unaccompanied Minor service, this means addressing communication and coordination challenges with a user-centered mindset, ensuring the service aligns with both customer expectations and operational efficiency.

REQUIREMENTS

1.5 Requirements based on Introduction

The introduction chapter highlights the role of KLM's Unaccompanied Minor service and its importance for both KLM, children and caregivers. Based on these insights, the following specific requirements are defined to guide future design solutions:

- **Alignment with KLM's Brand Values**
 - The UM service must reflect KLM's core values as outlined in the NeedScope model. It should emphasize these values in both its branding and service delivery.
 - **Testable Requirement:** Verify whether the redesigns or recommendations align with KLM's brand identity and resonates emotionally with users.
- **Supporting Key Differentiators**
 - Peace of Mind:
 - The service must provide caregivers and children with clarity and confidence at every stage of the journey, reducing uncertainty and ensuring smooth operations.
 - **Testable Requirement:** Verify whether the redesigns or recommendations make users feel more reassured and confident in the process than they do now.
 - Meaningful Interactions:
 - The service should promote empathetic and personalized interactions between KLM staff, AFS, UMs and caregivers.
 - **Testable Requirement:** Verify whether the redesigns or recommendations increase the perceived quality of interactions between staff and children.
 - Convenient Transfers:
 - Transfers must be seamless and stress-free, supported by clear instructions, efficient processes, and child-friendly facilities.
 - **Testable Requirement:** Verify whether the redesigns or recommendations increase process efficiency and satisfaction levels during transfer stages.
- **Clear Communication**
 - The service must deliver consistent, clear, and accessible information across all touchpoints, from booking to look back.
 - **Testable Requirement:** Ensure that caregivers and children can easily understand and navigate communication materials.
- **Inclusivity for Age Groups**
 - The service must address the needs of children aged 5–18, adapting processes and tools to different levels of independence and maturity.
 - **Testable Requirement:** Verify with age-specific user testing to ensure solutions are effective for all age groups.
- **Dual Audience Support**
 - The service must effectively address the unique needs of both children (as consumers) and caregivers (as customers) throughout the journey.
 - **Testable Requirement:** Verify with user testing to confirm that both groups feel supported and informed.

Chapter 2

D I S C O V E R

The Discover phase begins the Double Diamond process, focusing on in-depth research to understand KLM's Unaccompanied Minor service. Through stakeholder interviews, data analysis, and observations, this phase identifies pain points and opportunities, forming the foundation for future improvements.



DISCOVER

2.1 KLM's Unaccompanied Minor Service: Overview and Process

KLM has a longstanding UM service aimed at ensuring that children can travel safely and independently when their caregivers are unable to accompany them. While the KLM website offers a description of the service, showing how staff assist and monitor the child during the journey, the actual process encompasses more than what occurs at the airport.

The description on KLM's website provides a snapshot of the service: "Before departure, our staff will accompany your child to their seat in the aircraft. During the flight, our cabin attendants will keep a close eye on your child. We'll bring them to a designated lounge for children travelling alone if they have a long transfer. After arrival, we'll accompany your child to the arrival hall to bring them to the person you have authorized to pick them up." (KLM, 2024).

However, this brief explanation only covers the steps at the airport. The entire journey of a UM involves several more touchpoints, starting before the actual flight and extending beyond the arrival gate. To gain a better understanding, this research explores not just what happens on the day of travel but delves into various factors: Why do children fly alone? How do parents become aware of this service? And what steps are involved from booking to pickup?

Gathering Insights

To map out the UM service comprehensively, I conducted interviews with six caregivers and fifteen children who have used the service. Notes from these interviews can be found in Appendix B. Additionally, I spent a few days at Schiphol Airport observing different elements of the UM process. (Appendix B). From these observations and conversations, I compiled a customer journey, with simplified illustrations that capture each key phase of the service shown in Figure 15.



Figure 15
Scenario sketch. Image created by the author (2025).



Visual Representation of the UM Service Process

Figure 15 illustrates a scenario sketch of the UM service process, highlighting the biggest steps children experience. Each drawing includes corresponding texts that explain these scenarios. Based on this initial sketches, the UM service was divided into nine primary phases (Figure 16), two of which are not always applicable—namely, the transfer phase and a second flight (phase 6 & 7). However, these are incorporated into the customer journey for completeness because, as mentioned earlier a large proportion of the UM's use a transfer. In cases where a UM does not have a connecting flight, these two phases can be excluded.

Figure 16
Nine phases of UM service. Image created by the author (2025).



Emotions Map for the UM Service

Through shared user experiences, I created an emotional map for both the UM and the caregivers (Figures 17 & 18). This visualization outlines the range of emotions mentioned by children and caregivers throughout each phase. The emotions map provides an overview of the feelings experienced by both the customer (caregiver) and the consumer (child) during the entire journey. Currently, certain phases of the journey are associated with emotions that can be perceived as negative. Improving the service to reduce these negative emotions and transform them into positive experiences would directly contribute to achieving KLM's two key differentiators highlighted in the previous chapters: 'Peace of Mind' and 'Meaningful Interactions'. By addressing these emotional touchpoints, the UM service can foster trust, reassurance, and a stronger emotional connection with both children and caregivers.

Figure 16
Legenda mentioned emotions. Image created by the author (2025).

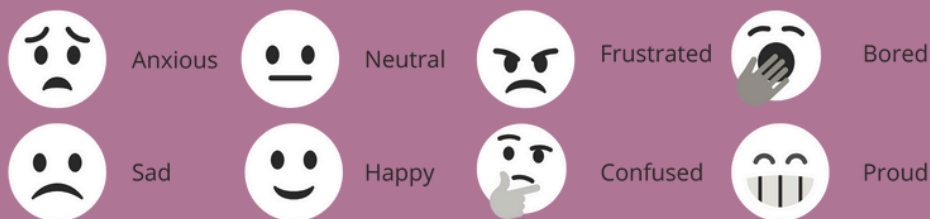


Figure 17
Emotion Map UM's. Image created by the author (2025).
% of all children interviewed mentioned this emotion

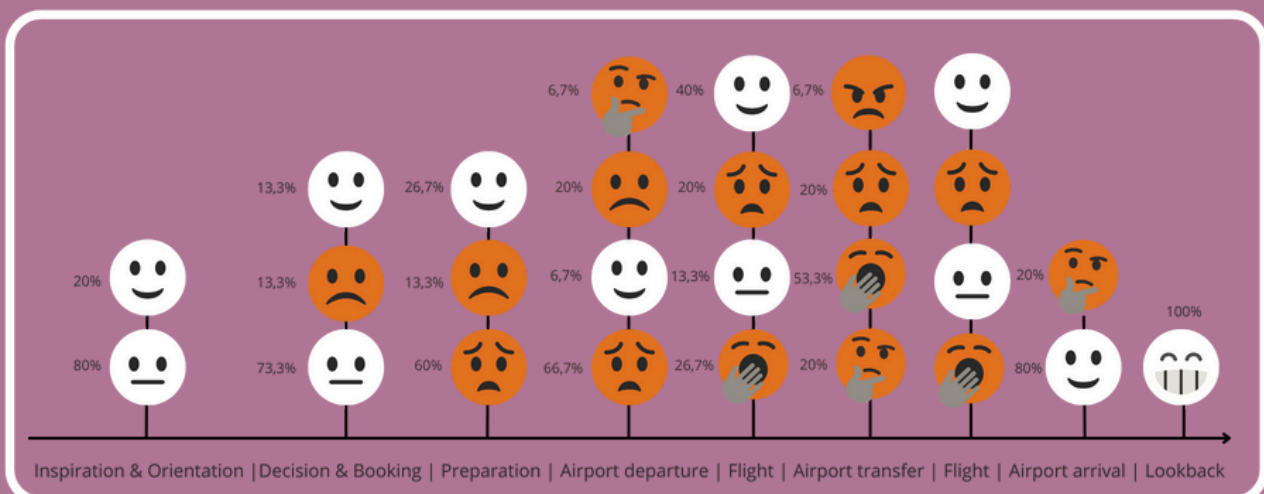
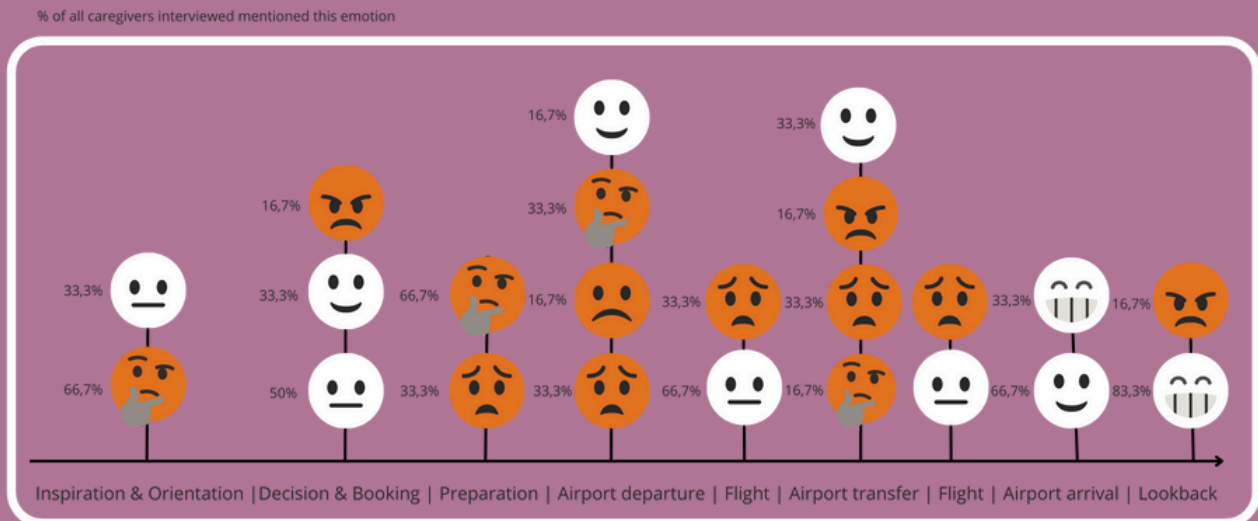


Figure 18
Emotion Map Caregiver. Image created by the author (2025).



2.2 Stakeholder Map and Analysis

In the context of KLM's Unaccompanied Minor service, a complex network of stakeholders is involved. Each of these stakeholders contributes to making the entire journey possible for children traveling alone. To better understand the interactions, responsibilities, and dependencies between these parties, a stakeholder map has been developed (see Figure 19). This visualization provides an overview of the direct and indirect relationships between internal and external stakeholders, their shared values, and opportunities for improvement.

Key Insights

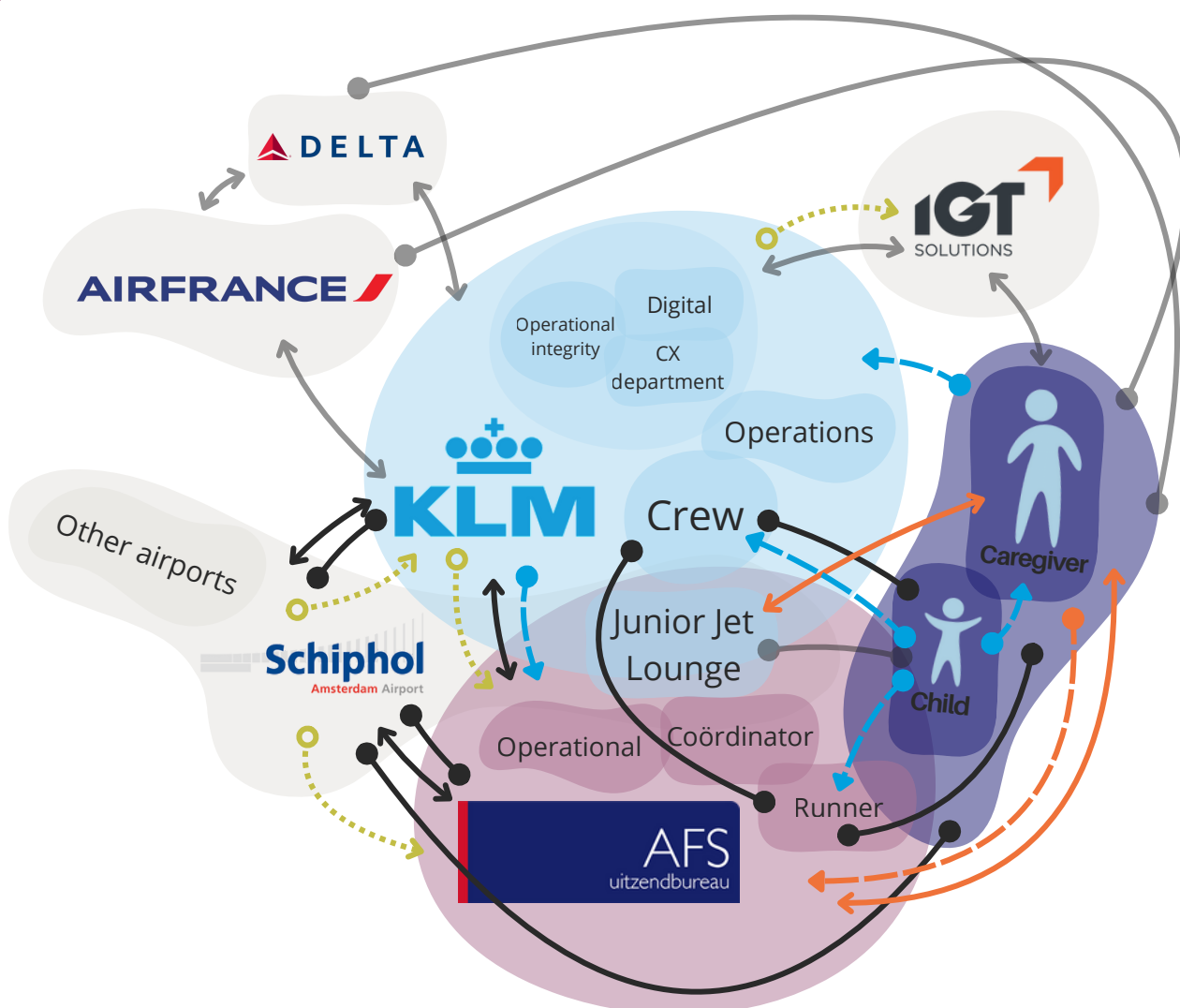
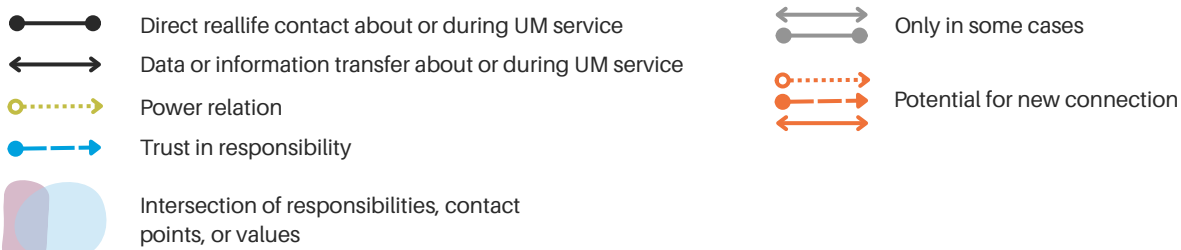
The stakeholder map reveals that various parties, such as caregivers, AFS, Schiphol, and KLM's internal teams, play roles in ensuring a travel experience for UMs. The map identifies overlaps in responsibilities, such as logistical coordination and child safety, as well as dependencies on external parties like IGT Solutions or Schiphol. These relationships require clear communication and efficient protocols to prevent bottlenecks.

The map also highlights trust as a factor, particularly between caregivers, KLM, and AFS, emphasizing the importance of consistent communication and transparency. Furthermore, opportunities for improvements are identified, including enhanced coordination between internal teams and external partners to streamline operations and ensure better alignment.

The stakeholder map offers a framework for understanding and improving the UM service. By acting on these insights, KLM can strengthen its partnerships, improve operational efficiency, and enhance the overall experience for caregivers and children.

Figure 19
Stakeholder map UM service. Image created by the author (2025).

Between different external stakeholders



2.3 Target Groups of the KLM UM Service

The KLM Unaccompanied Minor service is unique in its dual focus on two distinct customer and consumer groups: caregivers, who book and oversee the service, and children, who are its direct users. To provide a safe and comfortable experience, the service must accommodate the specific needs of children across various age groups, each requiring age-appropriate support and guidance (Shaw et al., 2015).

The service's design can be guided by the needs of five primary groups, as illustrated in Figure 20. This comprehensive approach ensures that KLM can deliver consistent quality while adapting to the unique requirements of both caregivers and children.

Key Takeaways

The KLM UM service must cater to the diverse needs of its target groups through a unified solution that adapts to all age groups effectively. While young children require emotional and physical support with close supervision and playful activities, teenagers value their independence and prefer minimal, discreet assistance. The challenge lies in creating a flexible service that accommodates these differences while maintaining a consistent approach.

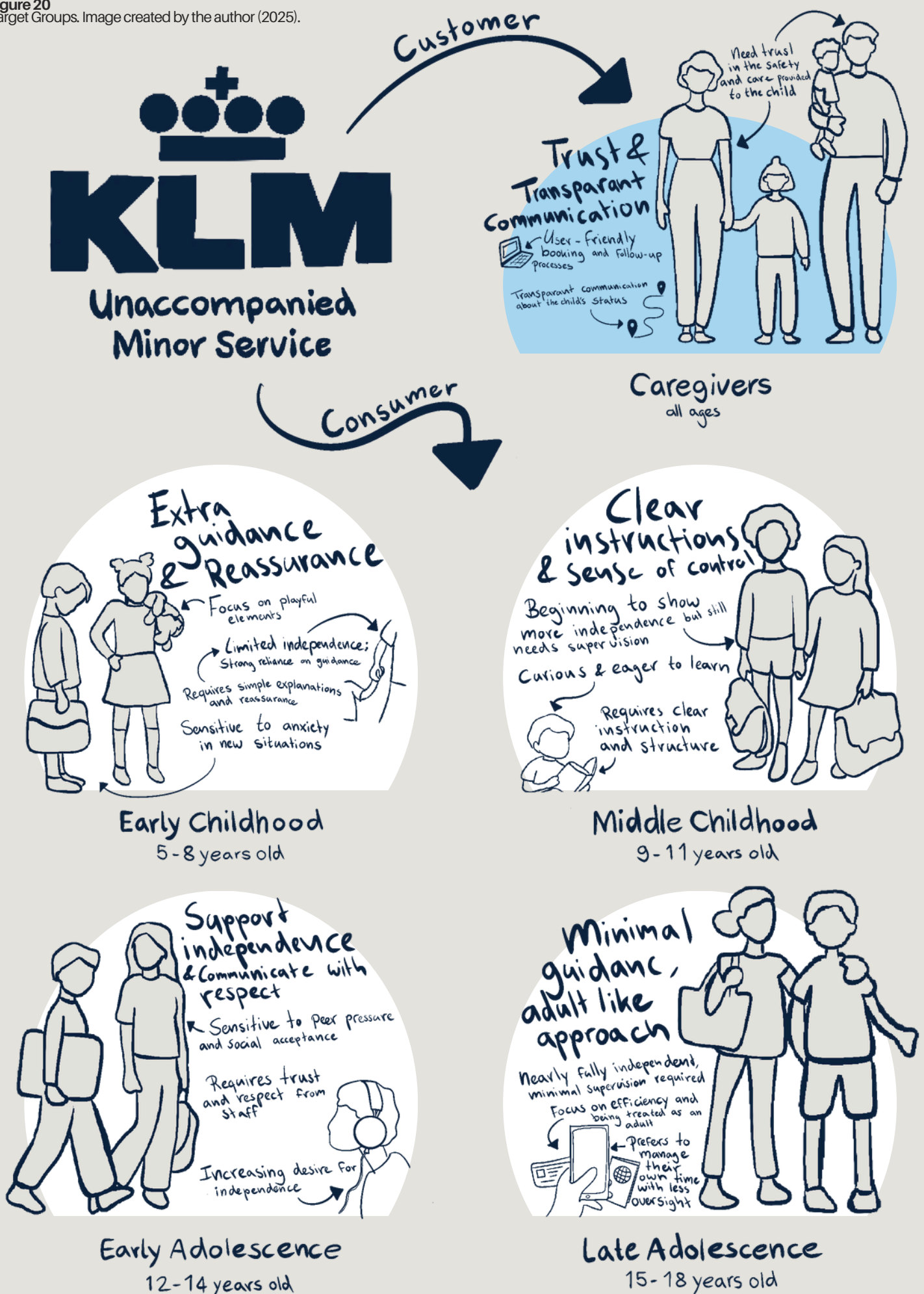
Cultural differences also influence caregivers' perceptions of their child's independence. In international contexts, this can shape expectations of the UM service and determine how staff should interact with both children and caregivers.

To achieve this, KLM's UM service design must focus on customizable yet unified solutions. These could include a core framework that:

- Ensures clear communication with caregivers, providing updates and reassurance.
- Offers age-appropriate guidance for children, ranging from playful engagement for younger passengers to subtle support for teenagers.
- Provides operational flexibility to adjust the intensity of service based on individual needs without disrupting the overall process.

By embedding adaptability within a single solution, KLM can ensure that its UM service meets the needs of all age groups while remaining reliable and cohesive. This approach not only enhances the travel experience for Unaccompanied Minors but also builds trust and confidence among caregivers, making the service both efficient and universally appealing.


Figure 20
Target Groups. Image created by the author (2025).




2.4 Reasons for Unaccompanied Minor Travel

Minors travel independently for a variety of reasons. Understanding these motivations can help tailor a service that meets the emotional and logistical needs of both young travelers and their caregivers. Below, I've outlined the primary categories of travel motivations, showing the diverse range of circumstances under which minors may need to fly alone.


Family-Related Reasons

- 
- Family or Friend Visits: Visiting family members or friends in another city or country.
 - Divorce or Separated Caregivers: Traveling between parents or caregivers who live in different locations due to separation or divorce.
 - Special Family Ceremonies: Attending important family events.
 - Adoption or Custody Procedures: Traveling for adoption or custody-related reasons and legal processes.


Education, Sports, and Cultural Events

- 
- Educational or Sport Purposes: Traveling for school trips, exchange programs, or to participate in sporting programs.
 - Competitions or Auditions: Attending international talent competitions, auditions, or scholarships in different fields.

Health and Emergency Situations

- 
- Medical Reasons: Traveling for medical treatment or consultations in another country.
 - Death or Emergency Situations: Attending a funeral or dealing with a family emergency requiring immediate travel.

Humanitarian and Legal Reasons

- 
- Humanitarian or Refugee Travels: Traveling as part of a humanitarian mission or as a refugee.
 - International Relocation: Moving to another country to reunite with family members or due to a parent's work transfer.
 - Ambassadorship or Consular Services: Traveling to another country for visa applications, renewals, or legal documentation.

Each reason for unaccompanied travel comes with its own unique circumstances. To ensure the best possible experience for both the child and the caregiver, the UM Service must consider all the possible needs and pain points. The following pages (Figure 21-24) provides a visual overview of the different needs and potential challenges for each travel group.

Figure 21
Needs and Painpoints Family-Related Reasons. Image created by the author (2025).

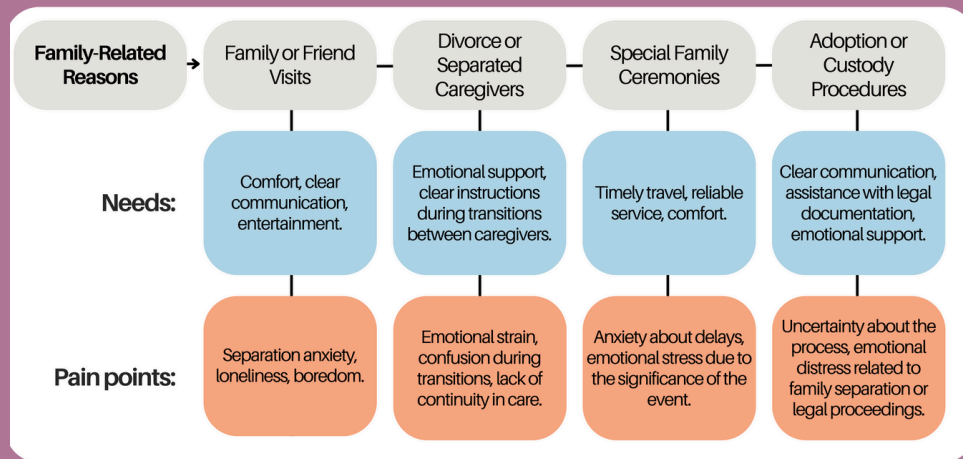


Figure 22
Needs and Painpoints Education, Sports and Cultural Events. Image created by the author (2025).

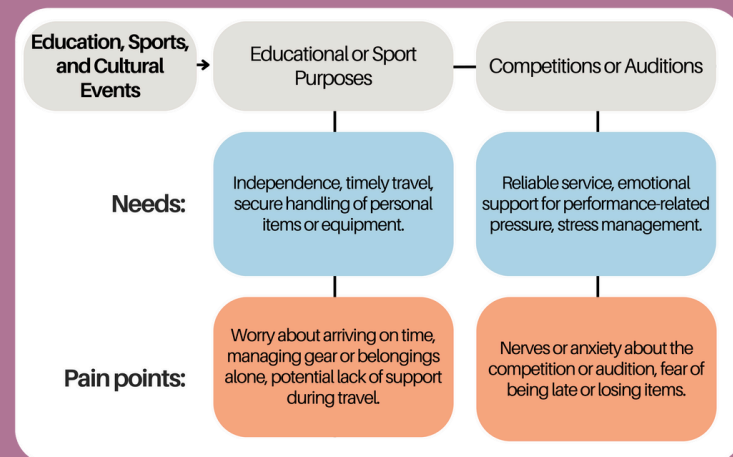


Figure 23
Needs and Painpoints Health and Emergency Situations. Image created by the author (2025).

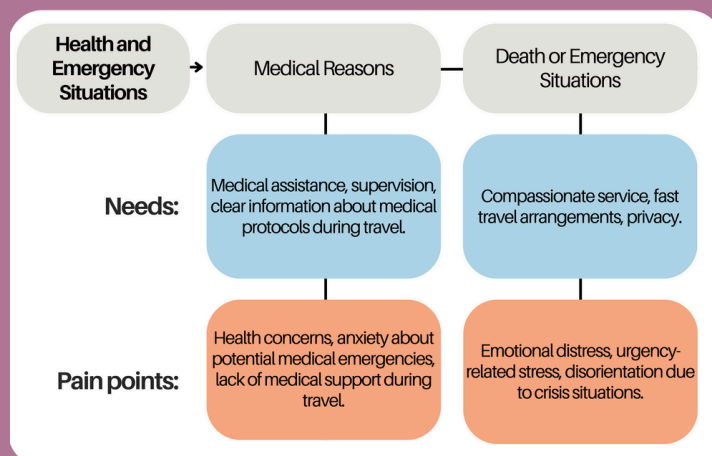
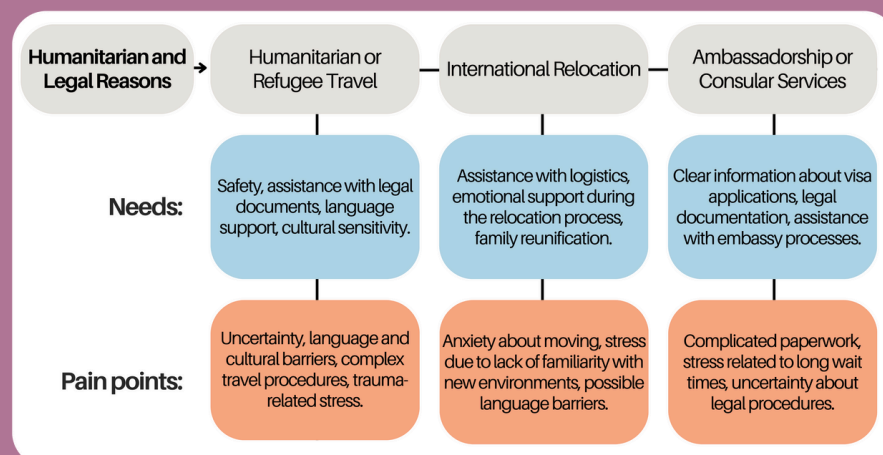


Figure 24
Needs and Painpoints Humanitarian and Legal Reasons. Image created by the author (2025).



2.5 Analysis of Trip Reports KLM

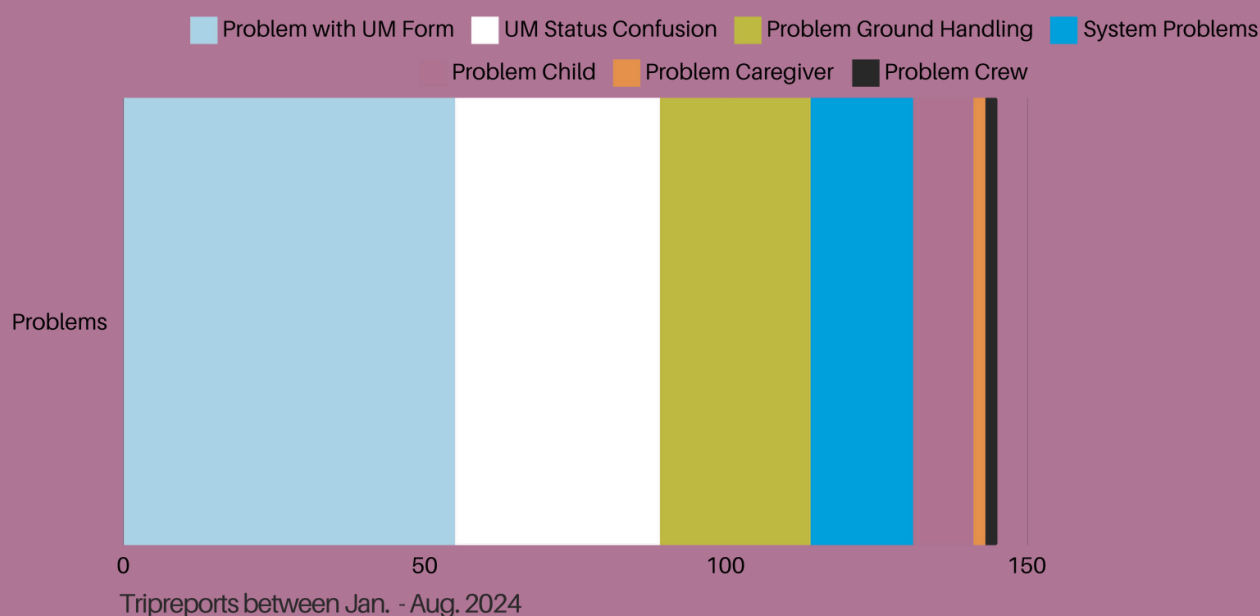
KLM receives trip reports written by employees when issues arise during the execution of the UM service. 145 trip reports written between January and August 2024 were collected and read. These reports were analyzed and categorized into different types of issues. The illustration in Figure 25 shows the full range of problems mentioned across various reports. These issues fall into several categories, each contributing to challenges faced by staff and impacting the overall UM service quality.

The categories include:

- Problems with the UM Form: Staff frequently encountered incomplete or incorrect UM forms, which led to delays or confusion during the handling of minors.
- UM Status Confusion: There was recurring confusion around whether certain children qualified as unaccompanied minors, leading to inconsistent service application.
- Problems with Ground Handling: Issues with ground handling included delays, logistical problems, and miscommunication between teams responsible for the minors.
- System Problems: System errors, including missing or wrong information affected the seamless operation of the UM service.
- Problems Related to the Child: These problems were centered on the behavior or emotional state of the children, such as anxiety or difficulty adjusting to traveling alone.
- Problems Related to Caregivers: In these cases, caregivers' failure to follow rules or instructions caused challenges in ensuring the smooth transfer of responsibility between the caregiver and AFS or KLM staff.
- Problems with Crew: A few reports pointed to crew members struggling with the additional duties of managing UMs on board.

While a range of issues were identified, five categories—problems with the UM form, UM status confusion, ground handling, system problems, and issues related to the child—accounted for the majority of the reported incidents. These areas, therefore, represent the most significant opportunities for improving the UM service experience.

Figure 25
Issues mentioned in trip reports. Image created by the author (2025).

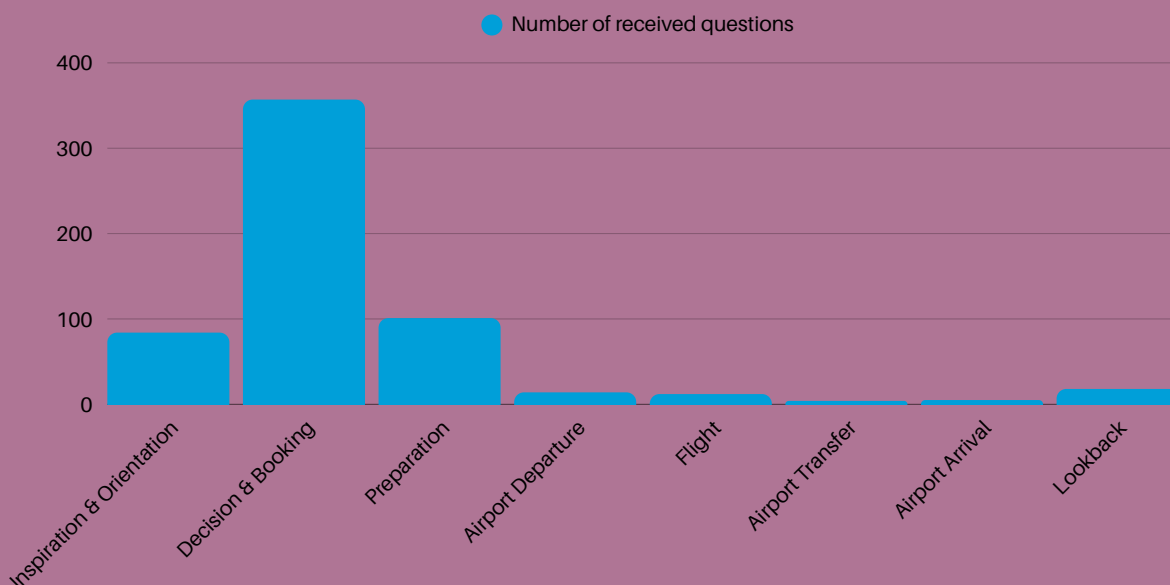


2.6 Analysis of Social Cases KLM

KLM utilizes various social media platforms to connect with its customers, including WhatsApp, Facebook, and Twitter. These channels handle numerous inquiries and comments from customers. Recently, a dataset of 602 questions and comments related to the Unaccompanied Minor service was compiled. These inquiries span different stages of the customer journey, which were outlined in a previous chapter.

Each social case has been reviewed and categorized. Figure 26 illustrates the distribution of questions across the various phases of the process. Appendix D also provides a detailed breakdown of the themes covered in these questions.

Figure 26
Questions out of social cases. *Image created by the author (2025).*



Key Findings

Figure 26 reveals that the majority of inquiries occur in the early stages of the process, before the journey begins. This pattern indicates that customers face significant confusion or lack of clarity during this pre-travel phase. It is likely that the information provided is either insufficient, unclear, or difficult to find.

This insight highlights an opportunity for improvement in the following areas:

- Pre-travel communication: Ensuring that information is comprehensive and easy to locate.
- Clarity and accessibility: Refining the way details about the UM service are presented.

Additionally, Figure 27 showcases the most asked customer questions. These frequently asked questions pinpoint the specific information gaps and concerns that need to be addressed.

Frequently asked questions

1

Inspiration & Orientation

- When is it required to book a UM service? (mandatory/ optional)

2

Decision & Booking

- How do I book the UM service?
- Can I add the UM service to an existing booking?
- Can I book the service for a child over the age of 15?
- Is it mandatory to book the service if I'm traveling in a different class than my child?

3

Preparation

- Can I reserve a seat for my child?
- What should I prepare for the trip?
- Can I receive a confirmation of the booking itinerary?

4

Airport (departure)

Drop-off Location and Timing

- Where is the UM drop-off location, and do I need a pass to accompany the child?
- When should I arrive/ drop off my child at the airport?

Pass and Documentation Requirements

- Do I need a pass to accompany the child to the drop-off location?
- What documents should I prepare for the drop-off?
- What paperwork or documents are required for dropping off the UM?

Procedures for Drop-off

- What are the steps and procedures for dropping off the UM at the airport?
- Do I need to wait at the airport until the flight takes off?

5

Flight *

- What is the flight status?
- Can you send me notifications (I do not want to log in) (booking changes/flight changes)
- Request contact information of cabin/ground crew.

6

Airport Transfer

- What will my child do/where will my child stay while waiting at the airport?
- Will you provide a meal voucher for my child while waiting at the airport?
- What will happen in case of delay/misco/transfer period?
- Can I get validation that someone will accompany my child? (during delay period)

7

Flight (* see questions above)

8

Airport arrival

- Where is the UM pickup location?
- What are the procedures/steps to be taken for pickup?

9

Lookback

- Refund/ claim

2.7 UM forms

When using KLM's Unaccompanied Minor (UM) service, children must carry a completed UM form in four copies. However trip reports, observations and interviews reveal frequent issues with these forms. These range from missing forms to incorrectly filled or insufficiently printed copies, leading to delays and confusion at check-in or moments where custody switches. This is particularly problematic when a flight involves transfers, requiring forms from different operating airlines, such as Air France or Delta.

Form Differences Between KLM, AF & Delta

One of the key challenges is the inconsistency between KLM, AF and Delta UM forms. While all airlines follow parts of the guidelines set by IATA (Appendix C), there are noticeable differences in how these guidelines are applied. (Appendix C) These variations can complicate the UM process and cause confusion for staff and passengers. In Figure 28, the key differences between the KLM, AF & Delta forms are highlighted. These variations not only lead to operational inefficiencies but also affect the consistency of the UM service, despite the close collaboration between the three airlines.

Analysis of Form Errors

To better understand the challenges, 148 trip reports from January to August 2024 were analyzed. KLM crew members noted frequent errors in how the forms were filled out. Additionally, I spent a day shadowing UM's at Schiphol Airport to observe and identify issues. Observation notes from this experience can be found in Appendix C.

Figure 29 shows a map of error-prone areas, with the most common mistakes highlighted. This analysis reveals that mistakes occur across various parts of the form, rather than being concentrated in a single section. Additionally, many reports mentioned missing information, without specifying which parts, suggesting a broader issue with form clarity.

Causes and possible improvements

The differences and errors identified point to a lack of clear guidelines for both passengers and staff. The need for children to carry multiple forms for different airlines adds complexity, increasing the likelihood of mistakes. The reliance on printed forms creates opportunities for error, suggesting a need for a more streamlined solution. The challenges faced with KLM, AF and Delta UM forms show the importance of standardization and simplification. Improving clarity and aligning the forms between KLM, AF and Delta could enhance the overall UM service experience. At the bottom of the form, it states that it must always be completed by the legal guardian of the UM. However, this is not always possible, as the legal guardian may not be present, which can lead to falsification. This needs to be clearly communicated in advance.

Figure 28
Differences between KLM, AF and Delta forms. Image created by the author (2025).

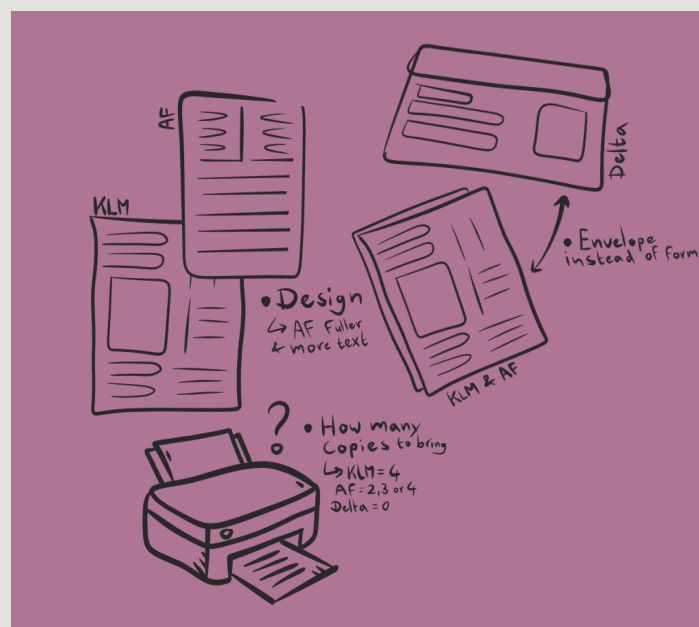


Figure 29
KLM UM form including mentioned issue points. Image created by the author (2025).

[illegible]

2.8 UM Necklace Wallet

Introduction

The UM necklace wallet is a product in KLM's Unaccompanied Minor service, serving as a key identification and document holder for children traveling alone. Figure 30 shows the product in use. While its design is intended to ensure easy recognition and convenience, feedback from users and staff highlights several challenges that undermine its functionality and perception. This section explores the current state of the UM necklace wallet, its limitations, and areas for improvement.

Figure 30
UM Necklace Wallet in use. Image provided by KLM (internal source, 2024).



The Original Idea

The UM necklace wallet was conceived as a practical and user-friendly tool to:

- Keep all essential travel documents together, such as boardingpass, UM forms, passport, visa and health certificates.
- Provide an easy way to identify the UM and their information at a glance.
- Promote KLM branding while ensuring a child-friendly and professional appearance.

The initial concept emphasizes simplicity, visibility, and ease of use.

The Reality

Despite its intended purpose, several issues have been identified (Figure 31) with the current UM necklace wallet:

- Perception by Users:
 - Some children have labeled it as the “blue necklace of shame,” reflecting embarrassment or discomfort in wearing it.
 - The single-use plastic design feels outdated and unsustainable, misaligning with modern environmental standards and customer expectations.
 - The simple and cheap plastic appearance does not fit the image of KLM as a brand.
- Functionality Issues:
 - If the wallet is removed, the UM cannot be easily identified by staff, increasing the risk of miscommunication or delays.
 - Departure times are not readily visible, requiring staff to open the wallet, which slows down the identification process.
- Availability and Uniformity:
 - The necklace is not consistently available at all airports, leading to inconsistencies in service delivery.

Figure 31
UM Necklace Wallet challenges. Image created by the author (2025).



Key Insights

These challenges impact not only the UM experience but also operational efficiency and brand perception. The stigma associated with the necklace could make children feel self-conscious, and the lack of visible departure information increases the workload for staff, creating miscommunication or potential delays at critical moments.

To address these challenges, the UM necklace wallet requires a redesign that prioritizes functionality and user experience. Key suggestions include:

- Redesign:
 - Replace the current plastic material with a durable, eco-friendly alternative that aligns with KLM's brand image.
 - Ensure that key details like the UM's name, flight number, and departure time are visible on the outside.
- Child-Friendly and Age-Appropriate Options:
 - Develop a wallet or variations that cater to different age groups, avoiding designs that UMs might find embarrassing.
- Enhanced Usability:
 - Incorporate secure compartments to keep documents organized and visible without the need to remove the necklace or make sure that the UM is also recognizable without the necklace.
- Standardized Implementation:
 - Ensure the necklace wallet is consistently available across all airports in the KLM network.

2.9 The KLM Unaccompanied Minor Check-In and AFS UM Desk at Schiphol Airport

Each airport has its own approach to handling the Unaccompanied Minor (UM) service. This chapter focuses exclusively on the process for children departing from Schiphol Airport, as other stations' procedures vary significantly due to local factors over which KLM has limited influence.

Arrival at Schiphol

When caregivers book the UM service for departures from Schiphol, they are provided with the following information on the KLM website:

"Bring your child to the check-in desk at the airport at least 2.5 hours before departure."

However, the specific desk is not mentioned, which can create confusion as there are two potential options.

1. Normal Check-In Desk:

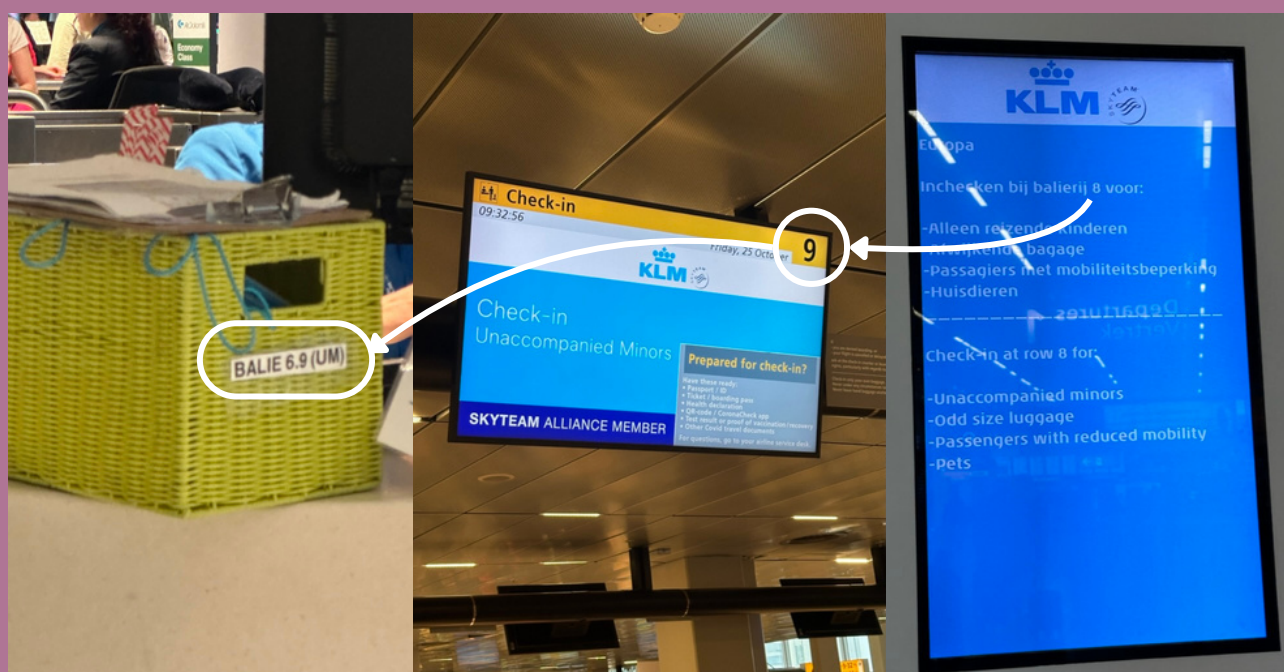
- During less busy periods, caregivers and children are instructed to check in at the regular desk for their flight. This desk is easy to find because it is indicated to all passengers on the screens, in the app, and on the website. In some cases, this can lead to longer waiting times for other passengers, as checking in a UM involves more steps than a standard check-in process.

2. Dedicated UM Check-In Desk:

- During peak periods, such as school holidays, a special UM check-in desk is opened in Departure Hall 2. However, its location is not mentioned online, leading to potential confusion for caregivers. In Departure Hall 2, a sign points to an "Unaccompanied Minor Desk" at Row 8 (as shown in Figure 32). In reality, the desk is located at Desk 9 within Row 6, creating inconsistencies between the signage and the actual location. Although KLM ground staff are familiar with the desk's location and can guide passengers, this lack of clear information can be challenging for those unfamiliar with Schiphol.

Figure 32

KLM Unaccompanied Minors Check-In Desk Information signs. Image created by the author (2025).



Transfer to the KLM / AFS UM Desk

After checking in at the designated desk, caregivers and children are directed to the KLM / AFS Unaccompanied Minor Desk, which is a standalone desk in Departure Hall 2. This desk's location is not publicly indicated and can only be found with guidance from ground staff. Positioned behind a corner and away from the main flow of foot traffic, it is not easily visible to passengers (as shown in Figure 33).

KLM / AFS UM Desk Experience

Once at the KLM/ AFS UM Desk, there are two possible scenarios:

1. Staff Presence:

- On exceptionally busy days, a staff member may be present to assist caregivers and explain the next steps. However, this only occurs a few times a year.

2. Self-Service:

- Most of the time, the desk is unmanned. Caregivers must read a note (Figure 33) taped to the screen, which instructs them to call a phone number to confirm their presence. AFS staff then pick up the child one hour before departure.

Observations and Feedback on the AFS UM Desk

Several points of concern were noted about the KLM / AFS UM Desk based on observations and feedback:

- **Visibility:** The desk is not easily visible or signposted from the main areas.
- **Inconsistent Information:** Signage, desk labels, and instructions lack clarity and uniformity.
- **User Experience:** The self-service process is perceived as impersonal and inconvenient, particularly for caregivers unfamiliar with the service.

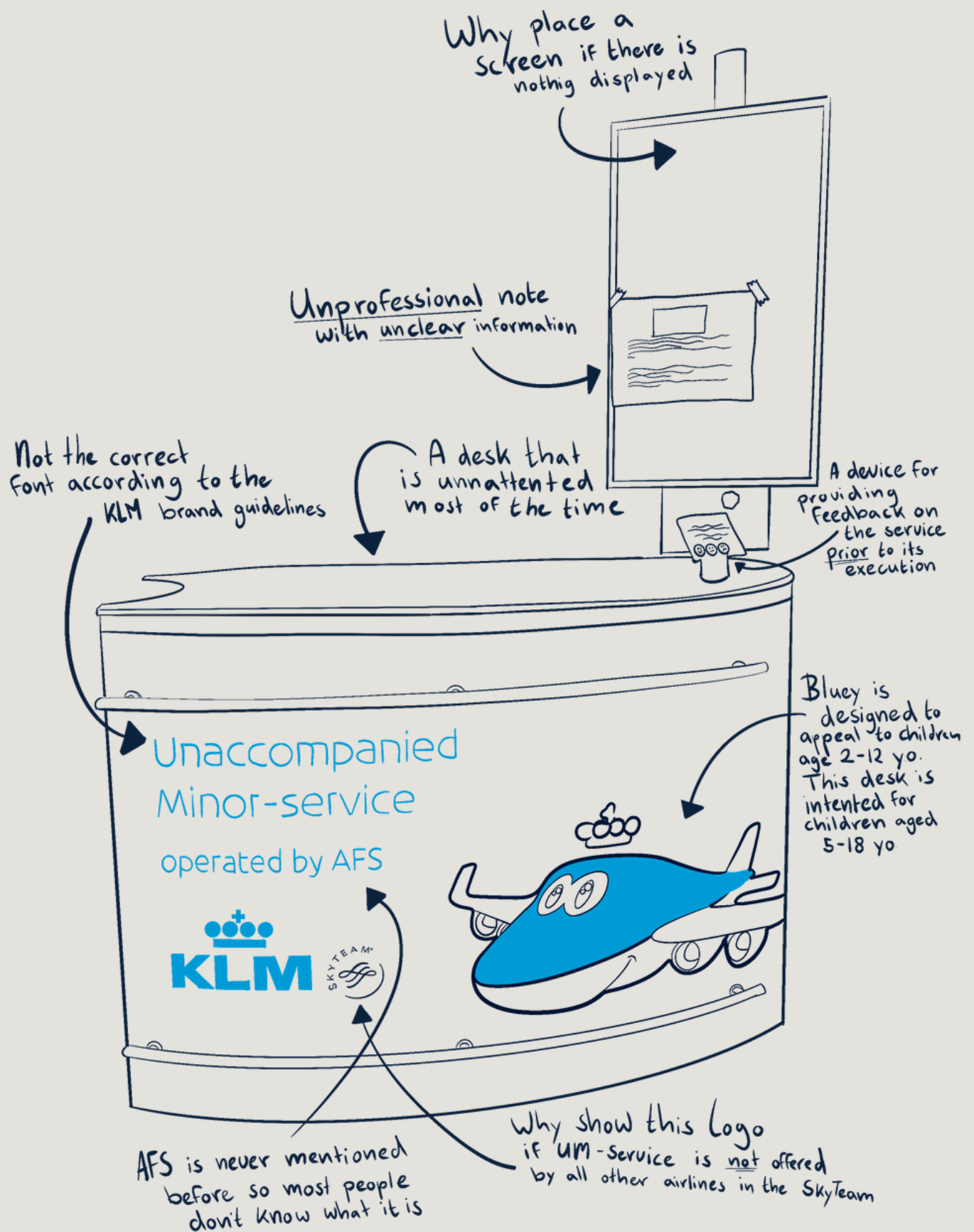
Figure 34 summarizes these issues and presents visual feedback regarding the KLM/ AFS UM Desk. Addressing these concerns could improve the UM experience for caregivers and children alike.

Figure 33

KLM/ AFS UM Desk. Image created by the author (2025).



Figure 34
Feedback regarding the KLM/ AFS UM Desk. Image created by the author (2025).



2.10 Trend analysis

Trends are changes in society that occur over more extended periods (Boeijen et al., 2014). The development of an optimized service proposition for KLM's Unaccompanied Minor service necessitates an understanding of this operational context. To examine the macro-environmental forces that influence the aviation industry and the UM service market a DEPEST analysis provides a structured approach. In this analysis we look into different factors.



Demographic



Economic



Political-legal



Ecological



Social-cultural



Technological

The analysis of these factors contributes to the positioning of KLM's UM service as a forward-looking offering that anticipates and adapts to the evolving requirements of young travelers and their families within a global context.

Demographic

Growth in Global Mobility is a significant factor, driven by increasing international education opportunities, such as boarding schools and holiday camps. This trend necessitates travel for children traveling alone, creating a demand for specialized services to ensure their safety and well-being during these journeys (Cisneros-Donahue et al., n.d.). As families seek to provide their children with global experiences, the need for reliable travel options will likely grow.

Rising Dual-Income Households further contributes to this demand. As both parents work, there is a greater need for independent travel solutions for children. Parents increasingly look for safe and efficient ways for their kids to travel alone, thus boosting the relevance of KLM's UM service (Centraal Bureau voor de Statistiek, 2024).

The increase in Divorced Families and Shared Custody arrangements also plays a role. More than 600.000 Dutch children do not live with both parents due to divorce, which leads to more frequent travel between households (Centraal Bureau voor de Statistiek, n.d.). This demographic trend emphasizes the necessity for services that support unaccompanied travel for minors, as children need to move between their parents' or caregivers homes.

Additionally, research indicates that *divorced individuals tend to travel abroad more frequently* (López, 2021). This trend further drives the need for child travel solutions, as children may have to travel between separated parents or caregivers.

The increasing number of Expatriate Families also impacts the demand for KLM's UM service. Expat families often face unique challenges related to their children's travel, including navigating international regulations and logistics. This demographic is likely to require services that facilitate child visits to family or friends in other countries or their old home country (Hoag, 2022).

Lastly, the *aging population in Western countries*, coupled with an *increase in emigration*, may influence family dynamics and travel patterns (Centraal Bureau voor de Statistiek, 2022; CBS Statline, n.d.). There may be a greater need for grandparent-grandchild visits, which could also drive demand for child travel services.

Economic

Rising Airline Ticket Prices are a significant factor. As noted by ABN AMRO (2023), the cost of air travel is increasing, which could impact the affordability of UM services. This trend might lead to a decrease in demand for non-essential travel, potentially affecting the frequency of UM bookings. However, it could also emphasize the value of comprehensive services like KLM's UM offering, as parents may prioritize safety and reliability when their children travel alone.

Conversely, the *Increase in Disposable Income Levels for families*, as reported by Eurostat (2022), could counterbalance the effect of rising ticket prices. Higher disposable incomes may enable more families to afford travel expenses, including UM services, potentially expanding the market for KLM's offering.

Competitive Pricing Strategies in the UM service market also play a crucial role. For instance, Transavia offers trips on a lower budget and does not mandate UM services for children aged 13-15, which can save money for parents (Transavia, 2024). This competitive landscape necessitates that KLM continuously evaluates and potentially adjusts its pricing and service offerings to maintain its market position.

The projected *Dynamic Growth in the Commercial Aviation Services Market*, driven by technological advancements, evolving consumer preferences, and post-pandemic recovery (Boeing, 2021), presents opportunities for innovation in UM services. KLM could leverage this growth trend to enhance its UM service with new technologies and tailored offerings that meet changing consumer expectations.

Exchange Rate Fluctuations have a long-term negative impact on tourism demand, affecting both Eurozone and non-Eurozone countries (Rookayyah et al., 2024). These fluctuations can influence the cost of international travel, potentially affecting the demand for UM services, especially for cross-border or long-distance trips. KLM may need to consider flexible pricing strategies or hedging mechanisms to mitigate the impact of currency volatility on its UM service.

The *Increasing Online Spending Trend* among Dutch consumers (CBS, 2020) suggests a growing comfort with digital transactions. This trend could be leveraged by KLM to enhance its online booking and management systems for UM services, making it easier for parents to arrange and monitor their children's travel.

Finally, the *Increase in Purchasing Power of Dutch citizens* (CBS, 2020a) may lead to greater willingness to invest in premium services like UM to provide children a travel experience. This economic factor could support the development of enhanced or premium UM service options, allowing KLM to cater to a potentially more discerning market segment.

Political-legal

Data Protection and Privacy Regulations. The General Data Protection Regulation (GDPR) of the European Union establishes strict guidelines for handling personal data, including sensitive information about children. KLM must ensure compliance with these regulations, particularly when managing UM passenger data across borders. This includes obtaining explicit consent from legal guardians, secure storage of personal information, and limiting access to authorized personnel only. Any breach of these regulations could result in significant financial penalties and reputational damage (European Union, 2018).

Standardization of UM Guidelines is possible. International organizations such as the International Air Transport Association (IATA) provide guidelines for the handling of Unaccompanied Minors. These standards aim to ensure consistency in safety and care across airlines, regardless of the destination. However, varying interpretations and implementations of these guidelines at different airports can create inconsistencies, potentially impacting service quality. Advocating for stricter adherence and standardization of UM protocols globally could benefit KLM by simplifying operations and building trust with caregivers (IATA, 2021).

Aviation Safety Regulations change. Regulatory bodies like the European Union Aviation Safety Agency (EASA) and the Federal Aviation Administration (FAA) impose stringent safety standards. These include clear protocols for managing UMs during emergencies, such as flight diversions or delays. Compliance with these safety regulations is a must for KLM (EASA, 2022).

Labor and Contractual Laws. Employment laws governing airline staff, including those at partner organizations like AFS, play a significant role in service delivery. Adherence to fair labor practices and contractual obligations ensures smooth coordination between stakeholders. Any disruptions in labor relations or disputes over UM-related responsibilities could directly affect service quality and customer satisfaction (OECD, 2021).

Visa and immigration requirements for minors traveling alone vary significantly between countries. These policies can complicate the planning and execution of UM journeys. KLM must ensure clear communication with caregivers about required documents and coordinate with immigration authorities to facilitate smooth transitions for UMs at international airports (UNICEF, 2022).

Ecological

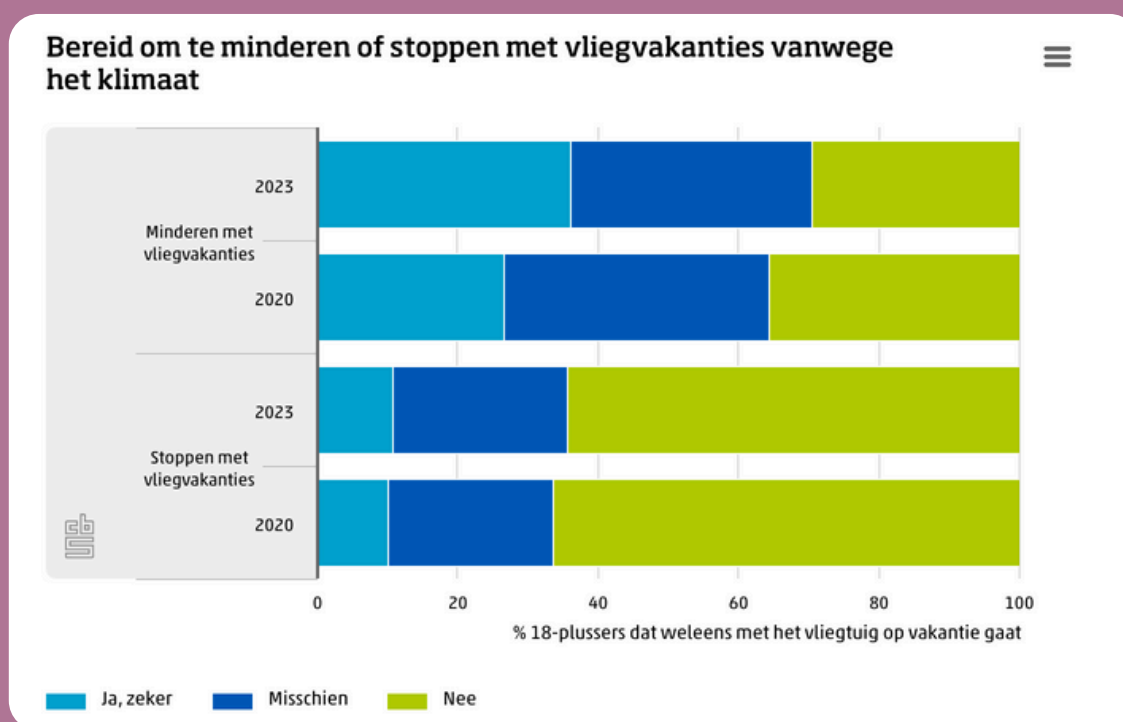
The *Growing Awareness of Air Travel's Environmental Impact* is a significant trend. Despite this awareness, there remains a substantial attitude-behavior gap due to the lack of viable alternative transport modes for long-distance travel (Árnadóttir et al., 2021). This paradox presents both challenges and opportunities for KLM's UM service. While overall air travel demand might face pressure, services that maximize the value and necessity of each flight, such as UM services, could become more important.

Flight Shame is an emerging phenomenon that's gaining traction. In 2023, 27 percent of occasional flyers reported feeling guilty about their flying behavior due to climate concerns, an increase from 19 percent in 2020 (CBS, 2024). This trend is influencing travel behavior, with 36 percent of adults who occasionally fly for holidays being prepared to do so less frequently for the sake of the climate as shown in Figure 35. However, 66.3 percent are not willing to completely stop air travel (CBS, 2024). For KLM's UM service, this could mean a potential decrease in overall customers. Conversely, it might lead to increased demand for UM services as parents opt to send children alone rather than accompanying them, minimizing the family's overall air travel.

The *growing Consumer Preference for Sustainable Companies* is another factor. Research indicates that consumers are more likely to purchase from companies perceived as sustainable (Bilan, 2013). This trend extends to the product level, with sustainable products experiencing significant growth in the consumer packaged goods sector between 2013 and 2018 (Whelan et al., 2019). For KLM's UM service, this underscores the importance of integrating and communicating sustainability practices within the service offering. Parents may be more inclined to choose a UM service that demonstrates strong environmental commitments.

However, the COVID-19 Pandemic has led to a *shift in priorities within the aviation industry*. Many companies have prioritized short-term strategies over environmentally friendly practices and sustainability initiatives (Amankwah-Amoah, 2020). This trend has resulted in the abandonment of some existing sustainability initiatives, such as upgrading to more environmentally friendly aircraft and offsetting emissions. For KLM's UM service, this industry-wide trend presents an opportunity to differentiate by maintaining a strong commitment to sustainability, even in challenging times.

Figure 35
Willing to reduce or stop flying for vacations due to climate concerns., Source: CBS



Social-cultural

The *Social Acceptance of Children Traveling Alone* is evolving. There's an increasing acceptance of children as independent travelers, but parental guilt and the idea of relinquishing responsibility remain significant factors, especially in more conservative cultures (Wood et al., 2022). This trend presents both challenges and opportunities for KLM's UM service. Promoting these services as safe, controlled, and empowering for children could help overcome parental reluctance and potentially expand the market for UM services.

An Increasing Focus on Personalized Travel Experiences, particularly among affluent travelers, is another significant trend. High-income customers are seeking more tailored experiences, convenience, and trust in travel services, moving away from traditional mass-market travel packages (Bhati et al., 2014). For KLM's UM service, this trend suggests an opportunity to develop more personalized options, aligning with broader trends in premium travel experiences. This could involve customized care packages, personalized entertainment options, or tailored communication services for children during their journey.

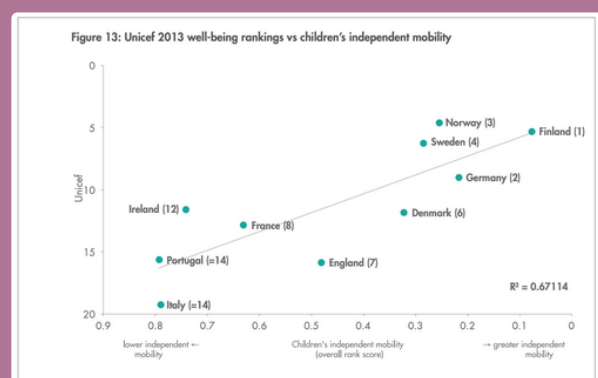
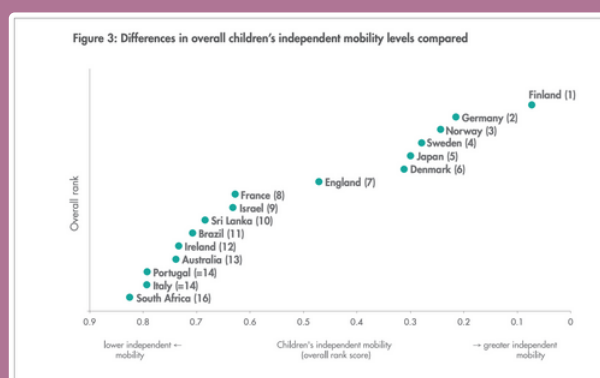
Cultural Differences in Perceptions of Appropriate Age for Unsupervised Travel play a crucial role in shaping attitudes towards UM services. A study comparing children's independent mobility across different countries highlights how factors like culture, traffic safety and urban policies affect children's freedom of movement (Shaw et al., 2015). You can see the results in Figure 36 Northern and Western European countries, which have similar cultures to the Netherlands, score high in children's independent mobility. This cultural context could be favorable for KLM's UM service, potentially allowing for more independence-focused service designs in these markets. The positive correlation between independent mobility and child well-being, as reported by UNICEF in 2013, further supports the potential benefits of such services. These results are shown in Figure 36.

The *Increase in Working from Places Other than the Office*, as reported by CBS (2020b), is changing work-life dynamics. This trend could impact travel patterns, potentially increasing the need for flexible child travel options. KLM's UM service could adapt to this by offering more flexible booking and travel options to accommodate changing work schedules.

A *Rise in Emigration*, leading to more family and friends living abroad (CBS, 2024a), is another factor that could drive demand for UM services. As families become more geographically dispersed, there may be an increased need for children to travel alone to visit relatives or attend family events in other countries. This trend could expand the market for KLM's UM service, particularly for international flights.

Lastly, the experience of *Expat Children and their Lack of Long-term Stability* (Mojca et al., 2018b) is an important consideration. Expat families often face unique challenges related to their children's sense of belonging and continuity. KLM's UM service could potentially address this by offering not just travel, but also a sense of familiarity and stability for children frequently moving between countries. This could involve consistent service experiences across different routes or special programs designed for frequent young travelers to visit places they left before.

Figure 36
Children's independent mobility, Source: UNICEF



Technological

Generative AI presents significant potential for personalizing travel experiences and improving customer service. As noted by McKinsey (2024), AI can predict needs or preferences, which could be valuable for KLM's UM service. This technology could help tailor the travel experience for each child, from pre-flight preparation to in-flight entertainment and post-flight follow-ups, enhancing the overall service quality and child satisfaction.

Cybersecurity & Digital Trust are becoming increasingly important, especially when dealing with children's data. McKinsey (2024) highlights the importance of ensuring the safety of personal data and travel details. For KLM's UM service, robust cybersecurity measures are important to protect sensitive information about child travelers, building trust with parents and complying with data protection regulations.

Automation & Robotics offer a lot of new opportunities (McKinsey, 2024). This could help to streamline the UM experience. Automating parts of the processes could make the journey smoother for KLM and the customer, reducing stress and improving efficiency.

Wearable Technology and Tracking tools, such as GPS-enabled devices are very upcoming (Usmani & Usmani, 2014). This could allow parents to track their children's movements in real-time. This technology could increase parental trust in the UM service, providing peace of mind throughout the journey. KLM could integrate such tracking systems into their UM service offering, potentially even as a premium feature.

AI and Automation are enabling more sophisticated communication systems. Automated updates on the child's location, flight status, and check-ins with designated personnel can become more common, improving communication between airlines and parents. KLM could leverage this technology to enhance the perceived value and reliability of their UM service.

The *High Level of Digital Skills among Dutch youth*, who are among the best in Europe in this regard (CBS, 2020c), presents an opportunity for KLM. The UM service could incorporate more advanced digital interfaces or apps that tech-savvy young travelers can easily navigate, enhancing their travel experience and independence.

The *Increasing Digital Activity* across all age groups in the Netherlands, including older people becoming more active on social networks (CBS, 2020e), suggests a growing comfort with digital solutions. This trend could support the adoption of digital tools for booking, managing, and monitoring UM services across different age groups of parents and guardians.

Lastly, the *Increase in Online Handling of Official Documents*, with more than 50% of Dutch people over the age of 12 preferring to do this online (CBS Statline, 2024), indicates a shift towards digital processes. KLM could capitalize on this trend by digitizing more aspects of the UM service, from booking to travel documentation, making the process more convenient for parents and guardians but also for KLM.

Key Insights

The trend analysis highlights factors shaping the demand for and expectations of KLM's Unaccompanied Minor service. These insights provide a foundation for refining the service to meet evolving customer needs:

- **Demographics:** Growing dual-income households, divorced families, and expatriates drive demand for flexible and reliable child travel solutions. Tailored offerings for these groups can increase relevance and adoption.
- **Economic Considerations:** Rising ticket prices may impact non-essential travel, but increasing disposable income creates opportunities for premium UM services. Competitive pricing and value-focused marketing are something to look into deeper.
- **Technological Innovation:** Tools like real-time tracking, automation, and AI can improve parental trust, streamline operations, and enhance the overall customer experience.
- **Sustainability:** Incorporating environmentally friendly practices into the UM service can attract eco-conscious families and differentiate KLM in the market.
- **Personalization:** The demand for personalized travel experiences highlights opportunities to innovate with customized care packages and tailored communication for young travelers.

2.11 Competitive environment

Dutch airlines

The Unaccompanied Minor services is offered by three airlines operating in the Netherlands: TUI, Transavia, and KLM. These airlines have established guidelines and pricing structures to accommodate unaccompanied children on flights. This benchmarking review examines the mandatory and optional requirements for different age groups and the associated costs.



TUI offers a UM service with distinct rules based on the child's age (TUI, n.d.):

- Mandatory Age Requirement: Children aged 5 to 12 years must use the UM service.
- Optional Age Requirement: The service is optional for children aged 12 to 18 years.
- Pricing: The cost of the UM service for a single trip is structured based on the flight distance:
 - Short-haul flights: €85 per child, per single trip (€100 if paid at the airport).
 - Long-haul flights: €150 per child, per single trip (€165 if paid at the airport).



Transavia's UM service is also segmented by age groups (Transavia, n.d.):

- Mandatory Age Requirement: Children aged 5 to 12 years must use the UM service.
- Optional Age Requirement: Children aged 12 to 18 years may choose to use the service.
- Pricing: Transavia's pricing is structured based on flight numbers:
 - For flights with an "HV" prefix, the cost is €55 per child, per single journey.
 - For flights with a "TO" prefix, the fee ranges between €55 and €90 per child, per single journey.



KLM provides a more comprehensive UM service and has distinct age requirements:

- Mandatory Age Requirement: Children aged 5 to 15 years must use the UM service.
- Optional Age Requirement: The service is optional for children aged 15 to 18 years.
- Pricing: KLM's UM service costs depend on the type and route of the flight:
 - Direct European flights: €100 per child.
 - Direct intercontinental flights: €150 per child.
 - Flights connecting within Europe via Amsterdam Schiphol: €200 per child.
 - Flights connecting intercontinentally via Amsterdam Schiphol: €300 per child.
 - KLM flights between non-Schiphol airports: €100 per child.
 - Flights connecting via the U.S. to another intercontinental destination: €250 per child.

Analysis

This analysis shows that all three airlines in the Netherlands aim to ensure the safety and comfort of unaccompanied minors. However, they differ in their mandatory age requirements and pricing structures. TUI and Transavia maintain similar age-based rules but offer varying price points. KLM, on the other hand, has a broader age bracket for mandatory service and a more complex pricing scheme, reflecting its extensive network and service diversity.

The differences in age requirements and pricing highlight each airline's approach to managing operational costs, service complexity, and customer demand for safe travel options for minors.

Partner Airlines

As part of the benchmarking analysis, it is also important to include Air France and Delta Air Lines due to their strong ties with KLM through the Air France-KLM Group and the SkyTeam alliance. Both airlines play a key role in providing interconnected services for unaccompanied minors, particularly on international routes and flights with layovers. By reviewing their policies, age requirements, and pricing structures, we can better understand how these partner airlines align with or differ from KLM's approach.

AIRFRANCE

Air France offers the Kids Solo service for unaccompanied minors under the following conditions (Air France, n.d.):

- Mandatory Age Group:
 - Children aged 4 to 11 years on domestic flights within France.
 - For international flights, the mandatory age group is 5 to 15 years.
- Optional Age Group:
 - Children aged 12 to 17 years on domestic flights and 15 to 17 years on international flights may optionally use the Kids Solo service.
- Pricing:
 - The costs for the Kids Solo service vary depending on the child's age and the route.
 - Specific rates are not publicly listed and can be obtained through Air France customer service.

DELTA

Delta Air Lines has the following rules for unaccompanied minors (Delta Air Lines, n.d.):

- Mandatory Age Group:
 - Children aged 5 to 15 years must use the Unaccompanied Minor service.
- Optional Age Group:
 - Children aged 15 to 17 years
- Pricing:
 - The cost of the Unaccompanied Minor service is \$150 per one-way trip, covering up to four children.
 - This fee applies to both domestic and international flights, including connecting flights.

Other means of international transport

In addition to air travel, minors can also travel internationally using other modes of transportation, such as trains and buses. Services like NS International and FlixBus provide options for unaccompanied children, though their guidelines differ from airlines. These alternatives are often more accessible for shorter distances and may appeal to families seeking lower-cost or convenient options. However, they come with other policies regarding supervision, age requirements, and parental responsibilities.

NS International

In ICE trains, children aged 12 and older are allowed to travel unaccompanied. (NS International, n.d.) However, it is the parents' responsibility to determine if their child is ready to travel alone. Important considerations include:

- There is no supervision provided on the train or at the stations during the journey.
- The child travels entirely at the parents' risk.
- The child must have written proof of parental consent for the journey.

FLiXBUS

FlixBus has specific rules in place to ensure the safety of young passengers traveling alone (FlixBus, n.d.):

- Children under 10 years old must always be accompanied by an adult.
- Children aged 10 to 15 years may travel unaccompanied but only with a signed consent form from a parent or guardian, submitted at the time of booking.

Key Restrictions for Children Aged 10 to 15:

- Travel is only allowed on domestic routes.
- Transfers between buses are not permitted.
- Journeys must take place between 6 AM and 10 PM.

Drivers are not responsible for supervising children during the trip.

For children aged 15 and older, travel is unrestricted, but they must carry valid identification and any required travel documents.

Key insights

The benchmarking analysis compared five companies offering services for international travel by minors under 18 years old from the Netherlands: KLM, TUI, Transavia, NS International, and FlixBus. The evaluation focused on age requirements, service restrictions, and associated costs, revealing the following key insights:

Age Requirements and Service Restrictions

- KLM stands out as the company with the highest mandatory age range for its Unaccompanied Minor service, requiring the service for children aged 5 to 15 and offering it optionally up to 18 years.
- TUI and Transavia have similar policies, with mandatory UM services for ages 5 to 12 and optional services for ages 12 to 18.
- NS International and FlixBus allow children to travel independently at younger ages (12+ and 10+, respectively) but provide no formal support or supervision, leaving the responsibility with parents.

Pricing Variations

- KLM charges the highest fees for its UM service, with costs increasing significantly for connecting flights, reflecting its extensive network and added operational complexity.
- TUI and Transavia offer lower pricing tiers, with flat rates based on flight distance or type.
- NS International and FlixBus have no additional fees for unaccompanied minors, which may make these options more appealing for cost-conscious travelers.

Positioning and Value Proposition

- KLM's higher pricing and broader mandatory age range suggest a focus on offering comprehensive safety and support for unaccompanied minors, positioning it as a premium service.
- Parents and guardians may choose KLM's UM service when alternative travel options are not feasible or when they perceive added value, such as enhanced safety, reliability, and convenience.

Alternative Options for International Travel

- While airlines like TUI and Transavia cater to similar age groups at lower costs, alternative transport options such as NS International and FlixBus may appeal to families traveling shorter distances or with older, more independent children.

KLM's UM service is the most restrictive and costly compared to other options, targeting families seeking premium support and reliability for young travelers. However, alternative options like TUI, Transavia, NS International, and FlixBus cater to cost-conscious families and those with older, more independent children. The analysis highlights the importance of KLM emphasizing its unique value proposition to remain competitive in this niche market.

2.12 Workshop with KLM and Fontys: Applying Design Thinking

In collaboration with Fontys University in Tilburg, we conducted a workshop for students from various programs, including the Honours Program of the BSc in Commercial Economics, the BSc in Commercial Economics - Sport Marketing, and the Johan Cruyff Academy. The session aimed to provide an introduction to the design thinking process, helping students apply this methodology to a real-world case study.

Focus of the Workshop

The workshop was led by Jordie Knoppers and Stephanie Woudstra and focused on understanding and applying design thinking techniques. The day started with a presentation where the design thinking theory used by KLM was explained. This theoretical session was complemented with various examples, both from KLM and other industries, showing the versatility of this approach.

The UM Service Case

The students were introduced to the case of KLM's Unaccompanied Minor (UM) service. The goal was for them to quickly navigate through the design thinking process within an afternoon. Students were divided into groups of four or five, each receiving an A3-sized design thinking canvas outlining the process steps. They began with the "Explore" phase, using role-playing exercises to gather insights. In these exercises, students assumed roles such as Child, Parent, Interviewer, Observer, and KLM Staff. Roles were switched every few minutes, allowing each participant to gain different perspectives. It was intriguing to see how various students approached their roles, leading to common and unique questions, as well as surprising new insights. This part of the workshop aligned well with the stage of my own project, providing fresh inspiration and ideas.

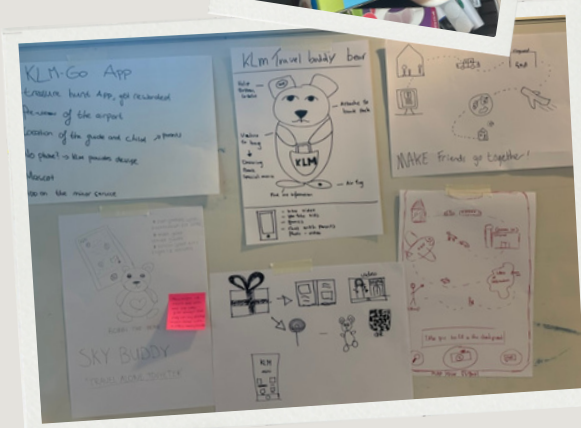
Defining and Ideating

Following the exploration, the students moved on to the "Define" phase, where they analyzed their interview results and determined the main problem or goal for their concept. Next, they entered the "Ideate" phase with a short brainstorming session. Each student received a folded sheet of paper with eight sections. They had one minute per section to sketch out their ideas, focusing on solving the identified problem without using text or collaborating. This encouraged creativity without overthinking or self-censorship. I also participated in this exercise, and it was fascinating to observe the students' creativity and quick thinking. Afterward, they returned to their groups to discuss and select the best ideas to develop into a complete concept in the "Make" phase.

Final Presentation and Reflections

In the "Make" phase, each group created a poster and delivered a short pitch presenting their chosen concept. The variety of ideas and unique perspectives demonstrated the power of the design thinking process, sparking many innovative and out-of-the-box solutions. The students left with a new problem-solving approach, and I gained inspiration and renewed motivation for my project. This workshop showcased how design thinking can help generate fresh perspectives and innovative solutions, making it a valuable approach for tackling complex challenges.

Figure 37
Workshop with Fontys students
Image created by the author (2025).



REQUIREMENTS

2.13 Requirements based on Discover

Below are the requirements derived from Chapter 2, Discover. Each requirement is directly tied to specific insights or issues highlighted in the chapter and presented in the order in which they appear.

- **Improve Communication with Caregivers and Children**
 - Develop a clear and unified communication strategy to provide consistent information to both caregivers and children regarding waiting times, procedures, and responsibilities.
 - **Testable Requirement:** Collect feedback from caregivers and children to measure whether communication is better understood.
- **Address Emotional Touchpoints**
 - Introduce emotional support at critical points in the journey to reduce stress and uncertainty. By providing interventions that foster reassurance and confidence, such as regular updates and personal interactions.
 - **Testable Requirement:** Evaluate emotional responses from users after implementation through surveys or observations.
- **Improvement of UM Necklace Wallet functionality**
 - Redesign the UM wallet to be more functional, durable, and appealing, with essential information like departure time visible to increase efficiency.
 - **Testable Requirement:** Test prototypes with children and staff to evaluate usability and perception.
- **Streamline Check-In and Desk Processes**
 - Improve visibility and consistency of check-in and desk procedures, including clear information. Ensure a uniform approach across all KLM locations.
 - **Testable Requirement:** Verify whether the redesigns or recommendations show improvement using feedback of caregivers and UMs.
- **Simplify and Clarify use of UM Forms**
 - Minimize errors by developing user-friendly way of using the UM Forms.
 - **Testable Requirement:** Verify if redesign or recommendation is more clear than current use of UM Forms.
- **Enhance Pre-Travel Information**
 - Develop an intuitive platform to guide caregivers step-by-step in preparing for the UM journey, including answers to FAQs and clear instructions.
 - **Testable Requirement:** Verify if redesign or recommendation is more clear than current pre-travel situation.
- **Provide Personalized and Inclusive Solutions**
 - Create flexible solutions tailored to the age, culture, and independence levels of the child.
 - **Testable Requirement:** Verify with tests with various demographic groups to measure whether the solutions meet their specific needs.
- **Strengthen Coordination Between KLM and AFS**
 - Improve data exchange and collaboration between KLM and AFS through a shared platform or protocol.
 - **Testable Requirement:** Verify with KLM and AFS to determine if inefficiencies and errors have decreased.

Chapter 3

D E F I N E

The Define phase narrows the insights gathered during the Discover phase into a clear problem statement and focus area. This phase identifies key challenges in communication and coordination, setting the foundation for developing targeted solutions to enhance the overall customer experience.



D E F I N E

3.1 Visual Representation of the Unaccompanied Minor Service Process

Importance of the Visual

To understand the full scope of the Unaccompanied Minor and combine all the information mentioned before I created a visual. This can help to identify gaps, inefficiencies, and areas for improvement. The service involves multiple stakeholders, such as caregivers, ground handlers (AFS), and KLM staff, each with their own responsibilities and touchpoints. Without a clear overview of how these elements interact across the entire journey, it becomes challenging to pinpoint where the service may fail to meet expectations or operate inefficiently.

By creating this visual, I aimed to provide a comprehensive and structured representation of the UM service. It maps out each phase of the journey, highlighting the actions, needs, and responsibilities of all parties involved. This visual not only makes the complexity of the service more accessible but also serves as a diagnostic tool to:

- Identify Misalignments: Highlighting areas where the service does not meet the needs of UMs or caregivers.
- Spot Inefficiencies: Revealing redundant or unclear processes that could hinder operational flow.
- Support Targeted Improvements: Providing a foundation for proposing and prioritizing actionable changes.

The visual is particularly valuable in ensuring that the service aligns with customer expectations while maintaining operational efficiency. By visualizing the interactions and dependencies between stakeholders, it becomes easier to address systemic issues and enhance the overall experience for Unaccompanied Minors.

Creation of the Visual

This visual representation was developed based on research conducted within KLM, including internal interviews, operational process reviews, and feedback from key stakeholders such as caregivers, AFS, and cabin crew. By synthesizing this information, I aimed to map out the end-to-end journey of an Unaccompanied Minor from the planning phase to post-travel reflection. The visual captures not only the logistical touchpoints but also the underlying needs and opportunities for improvement across various phases of the UM service.

Key takeaways

The analysis of the opportunities identified in the visual points to a critical overarching challenge: a lack of clear communication and coordination throughout the Unaccompanied Minor service journey. This issue manifests in several ways, including inconsistent guidance for caregivers, inefficient processes at touchpoints such as check-in, and miscommunication between KLM, AFS, caregivers, and the UM themselves. These gaps lead to confusion, delays, and missed opportunities to deliver a seamless and reassuring experience.

3.2 Establishing the Research Direction

The insights gathered during the Discover phase highlighted recurring issues that significantly affect the effectiveness of KLM's Unaccompanied Minor service. Figure 38 provides an overview of the key challenges and opportunities identified in the UM Process visual. These issues arise across the entire journey, from initial orientation to post-travel look back, often leading to confusion and frustration for users.

To define the direction of my research, I focused on an overarching theme: the root cause behind these challenges. The areas highlighted in blue point to one critical issue—a lack of communication and coordination among key stakeholders, including KLM, AFS, caregivers, and the children themselves.

Figure 38
Overview key challenges. Image created by the author (2025).

Lack of promotion for optional UM service for ages 15-18, missing revenue potential	Unclear website causing increased inquiries, reducing efficiency and raising costs for call centre etc.	Inefficient document verification and baggage handling disrupting the arrival experience.
Underutilized potential to position UM service as a premium, safety-focused offering.	Lack of an interactive portal for caregivers to track UM journey and updates.	Comfortable and entertaining spaces for UMs during long layovers.
Unclear expectations for caregivers during key moments.	Insufficient communication about waiting times at the airport. Conflicting information from KLM (2.5 hours) and AFS (1.5 hours) on arrival times, leading to confusion and insufficient clarity for caregivers and children.	Reliance on children to confirm luggage at the carousel, leading to potential errors and miscommunication.
Lack of clarity on duration of process steps.	Redundant process requiring parents to confirm presence with AFS despite check-in at KLM desk, causing inefficiency and confusion.	Language barriers between children and ground staff causing communication challenges.
Inadequate staff training on UM processes and interactions.	Lack of child-friendly waiting areas with entertainment and relaxation facilities at airports.	Difficulty identifying the correct 'UM necklace' due to outdated passport photos and language barriers.
Insufficient time for the purser to engage with the child, complete formalities, and provide adequate explanation or information transfer during busy preparations.	Absence of a feedback system for UMs and caregivers, relying solely on complaints about unhappy flow.	Departure time not clearly visible on 'UM necklace,' causing inefficiencies for AFS staff.
Inconsistent adherence to UM protocols and insufficient preparedness for handling issues.	Inefficient document checks during departure causing unnecessary waiting times.	

Research Direction

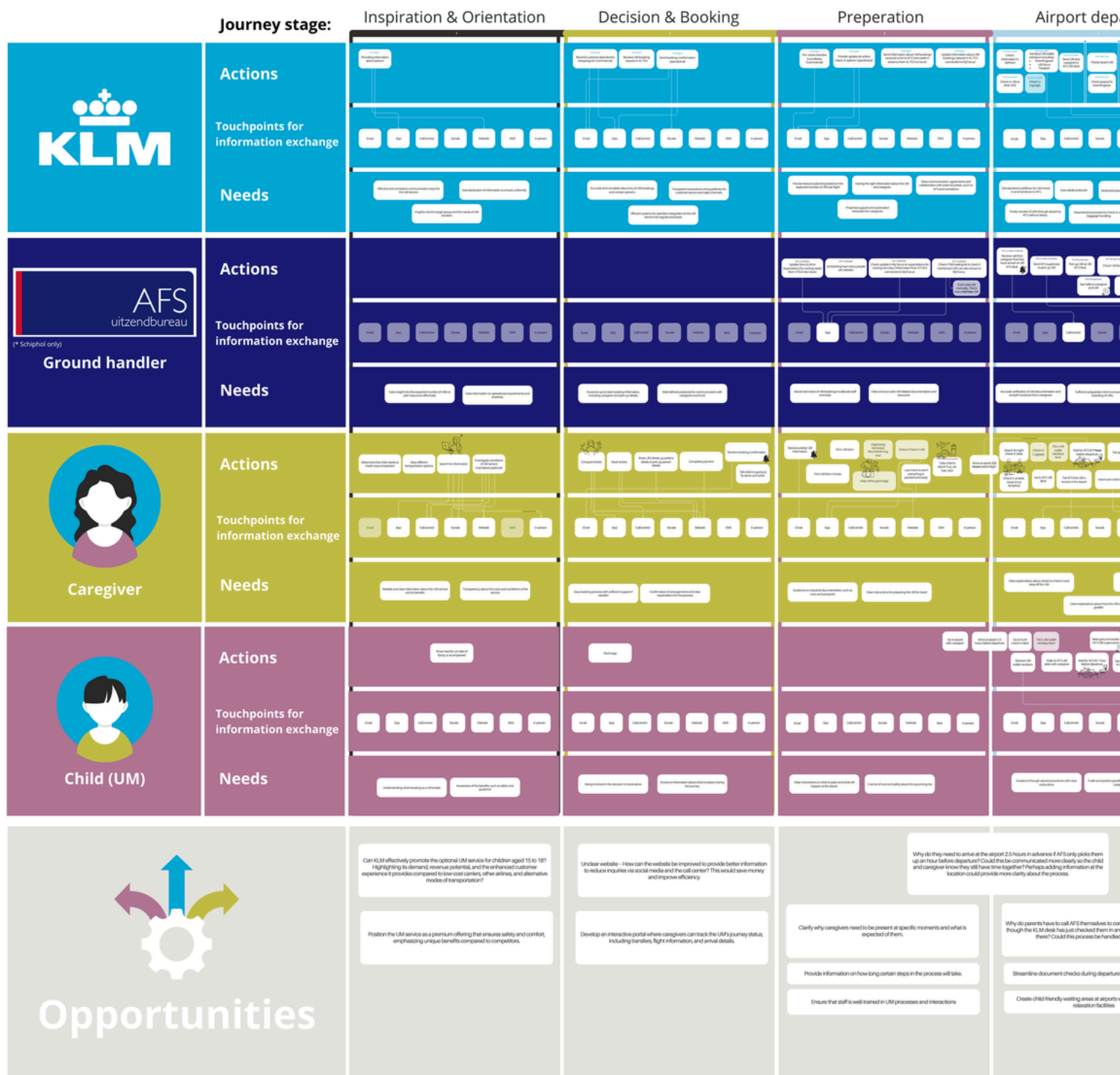
Based on the findings, the research focuses on addressing the lack of communication and coordination among stakeholders—KLM, AFS, caregivers, and children. This gap creates inefficiencies and misaligned expectations throughout the UM journey. The research seeks to answer: How might we improve the clarity and efficiency of the Unaccompanied Minor journey from Inspiration & Orientation to Look Back, ensuring better coordination and communication among all stakeholders to reduce confusion and enhance the overall experience?

Rationale for the Research Focus

The identified issues highlight the need to improve communication and coordination. By streamlining processes, enhancing clarity, and fostering collaboration among stakeholders, this project aims to address key challenges, improving user satisfaction while aligning with KLM's strategic goals.

Strengthening the UM service supports KLM's brand position, as defined in the Needscope model, by emphasizing trust, care, and exceptional service for families and children. Addressing these challenges allows KLM to differentiate itself, build long-term loyalty, and reinforce its customer-centric focus.

This research direction lays the groundwork for the Develop phase, where actionable solutions will be ideated and prototyped to tackle the identified challenges.



3.3 Comparing Findings with Previous Research

The Unaccompanied Minor service has been the subject of multiple internal studies over the years. While these studies have highlighted key pain points and opportunities, many of the identified issues remain unresolved or only partially addressed. This chapter synthesizes insights from these studies, comparing them to the findings of this project, and explores why similar challenges persist.

Key Findings Across Studies

KLM UM Handling Review (2013): This review identified critical inefficiencies in booking processes, document handling, and coordination during various touchpoints of the UM journey. It revealed that 75-80% of claims stemmed from booking errors, highlighting a lack of streamlined procedures and miscommunication between departments.

TU Delft Graduation Project (2015): A comprehensive analysis of the UM service identified four Areas of Interest: time-consuming procedures, logistical challenges, tracing responsibilities, and external communication. Recommendations included digitizing procedures, introducing real-time tracking, and enhancing communication with caregivers.

KLM Explorative Study (2018): This qualitative research found recurring frustrations with long waiting times, unclear airport processes, and insufficient emotional reassurance for caregivers and children. Digitalization and improved customer guidance were recommended but have yet to be fully realized.

Air France Kids Solo Survey Report (2024): Similar themes emerged in Air France's study, including dissatisfaction with booking clarity, inadequate communication during the child's journey, and high service costs. Parents often felt the service lacked personal attention, echoing concerns raised in KLM studies.

Why Do Issues Persist?

Despite years of research and recommendations, many challenges remain unresolved. Several factors contribute to this:

- **Low Priority Within KLM:** The UM service represents a small percentage of KLM's overall customer base. As such, it often receives less focus compared to higher-revenue-generating services.
- **Limited Resources:** Addressing these challenges—especially those requiring digital transformation—demands significant investment in technology, training, and coordination, which can be constrained by budgetary and capacity limitations.
- **Complex Stakeholder Involvement:** The UM service spans multiple departments and external partners, making alignment and consistent execution challenging.

Key Takeaways

The analysis of previous studies highlights recurring issues, such as unclear communication, inefficient coordination, and a lack of user-centered solutions. Despite these findings being identified years ago, they remain unresolved due to the service's lower prioritization, resource constraints, and the complexity of implementing cross-departmental changes.

This underscores the importance of addressing these persistent challenges in a scalable and actionable manner. For this project, the focus will shift toward non-digital improvements that are feasible within KLM's current capacity, such as enhancing communication materials, simplifying processes, and fostering better coordination. These changes aim to provide immediate value while creating a foundation for larger transformations in the future.

Figure 39
Previous research. Image created by the author (2025).



3.4 Aligning KLM's UM Service with Brand Positioning

As described in the research in Chapter 1, KLM is not yet perceived as being in the desired position within the Needscope. The UM service could play a role in achieving this goal. The Unaccompanied Minor service, as it currently exists, can evolve to better align with the visual identity and emotional resonance of KLM's targeted orange-brown Needscope. KLM needs to embody these values not only through its operations but also through its branding and aesthetic representation.

Values and Emotions in the Orange and Brown Needscope

The orange segment of the Needscope emphasizes energy, enthusiasm, and positivity, creating a feeling of accessibility and vitality. Customers in this space value services that are optimistic, friendly, and innovative, evoking emotions such as joy and engagement. (Kantar, n.d.)

In contrast, the brown segment highlights stability, trust, and care, fostering a sense of authenticity and safety. Customers in this scope prefer services that are reliable, calm, and supportive, evoking emotions such as comfort and confidence. (Kantar, n.d.)

When combined, these segments represent a balance of liveliness and reliability, which need to be central to KLM's aspirations for its UM service. The goal is to create a service that feels both uplifting and secure, reflecting the emotional needs of children and their caregivers.

Moodboards as a Design Tool

To better understand how the UM service can embody these values, I created mood boards using AI tools. These visualizations explore the aesthetic and emotional elements associated with the orange and brown Needscope:

- Figure 40: Showcases the warm, caring, and grounded qualities of the brown Needscope, emphasizing trust and stability.
- Figure 41: Highlights the optimistic, energetic, and approachable elements of the orange Needscope, focusing on vitality and engagement.
- Figure 42: Combines these elements to suggest a middle ground, where KLM can uniquely position itself by balancing energy with care.

These visuals serve as a guide for understanding how the UM service's branding and design can reflect the desired emotional and functional attributes. The images were created in collaboration with AI. Due to the limitations of AI, the text within the images may not always be accurate. The focus is solely on the visual aesthetic. By integrating these principles into the Develop phase, the future service can align more closely with KLM's strategic goals and strengthen its position within the orange-brown Needscope. This approach ensures the service not only meets operational needs but also resonates emotionally with caregivers and children, reinforcing KLM's brand identity and differentiation.

Figure 40



Figure 41



Figure 42



3.5 Current State of KLM and Its Impact on the UM Service Project

Current state

KLM, like many global airlines, faces significant challenges as it navigates the post-pandemic recovery phase and addresses ongoing operational and financial pressures. In 2024, during the time of my graduation project, KLM launched the "Back on Track" program to mitigate these issues and restore profitability. Key elements of the current situation include:

- **Operational Challenges:** Staff shortages, increased operational costs, and ongoing adjustments to meet market demands have strained resources.
- **Cost-Cutting Measures:** KLM aims to save €450 million annually by delaying investments, streamlining processes, and improving productivity by 5% by 2025.
- **Digital Department Priorities:** With limited capacity, the digital department is focused on higher-priority projects, leaving less room for innovation in secondary services such as the Unaccompanied Minor service.

These factors create a constrained environment where strategic initiatives must align with immediate operational realities and long-term goals.

Impact on the UM Service Project

The current state of KLM directly influences the approach and scope of this project. While the UM service is an important component of KLM's customer experience, it is not a top priority under the current circumstances. This necessitates a pragmatic approach:

- **Focus on Low-Hanging Fruit:** Given the limited resources and capacity, this project prioritizes simple, low-cost solutions that can be implemented quickly without significant operational disruptions. These "low-hanging fruit" improvements target immediate pain points, ensuring tangible results within the constraints of KLM's current operations.
- **Minimized Dependency on Digital Resources:** Recognizing that the digital department is overburdened with other initiatives, the project avoids solutions requiring extensive digital development. Instead, it emphasizes process optimizations and operational enhancements that can be executed with minimal reliance on digital innovation.
- **Alignment with Cost-Cutting Goals:** The solutions are designed to improve efficiency and reduce costs, aligning with KLM's broader objectives under the "Back on Track" program. This ensures that any proposed changes contribute to KLM's financial and operational recovery.

Strategic Focus of the Project

To address these challenges, the project centers on:

- **Operationally Feasible Solutions:** Proposals will leverage existing resources and infrastructure, focusing on adjustments that are easy to implement and maintain.
- **Customer-Centric Improvements:** Enhancing clarity and communication within the UM service ensures a better experience for both children and caregivers, creating value even in a resource-constrained environment.
- **Future Scalability:** While immediate improvements are the priority, solutions will be designed with scalability in mind, ensuring they can be expanded or integrated with digital tools when resources become available.

This approach ensures that the UM service remains a valuable part of KLM's customer offering, even in challenging times.

“Back on Track”



R E Q U I R E M E N T S

3.6 Requirements based on Define

Below is a list of requirements derived from the Define chapter, focusing on practical, cost-effective solutions that align with the airline's present capabilities.

Focus on Low-Hanging Fruit

- Prioritize simple, cost-effective solutions that can be implemented quickly and without significant resource investment.
- Testable Requirement: Validate whether the proposed solutions address immediate operational challenges and are implemented within the current resource constraints.

Minimize Dependency on the Digital Department

- Develop solutions that do not require extensive digital development, given the limited capacity of KLM's digital department.
- Testable Requirement: Ensure proposed solutions can be executed using existing tools and processes without requiring new digital infrastructure.

Align with Cost-Cutting Initiatives

- Ensure that improvements align with KLM's "Back on Track" program, focusing on efficiency and cost reduction.
- Testable Requirement: Measure whether the proposed solutions reduce operational inefficiencies and costs.

Improvement at operational level

- Design solutions that leverage existing resources and infrastructure to minimize disruptions to operations.
- Testable Requirement: Assess feasibility through pilot testing and staff feedback on ease of implementation.

Scalability for Future Implementation

- While addressing immediate needs, ensure solutions are designed with scalability in mind to support future integration with digital tools or broader initiatives.
- Testable Requirement: Evaluate whether the proposed solutions can be easily expanded or integrated when additional resources become available.

3.7 Complete list of requirements for the future roadmap of the UM Service

Below is a consolidated list of requirements derived from the Introduction, Discover, and Define chapters of the report. These requirements serve as the foundation for evaluating concept ideas and ensuring alignment with KLM's strategic goals, operational constraints, and user needs.



Alignment with KLM's Brand Values



Enhance Pre-Travel Information



Supporting Key Differentiators



Provide Personalized and Inclusive Solutions



Inclusivity for Age Groups



Strengthen Coordination Between KLM and AFS



Dual Audience Support



Focus on Low-Hanging Fruit



Improve Communication with Caregivers and Children



Minimize Dependency on the Digital Department



Address Emotional Touchpoints



Align with Cost-Cutting Initiatives



Improvement of UM Necklace functionality



Improvement at operational level



Streamline Check-In and Desk Processes



Scalability for Future Implementation



Simplify and Clarify use of UM Forms

Chapter 4

D E V E L O P

The Develop phase turns insights from the Discover and Define phases into actionable design solutions for KLM's Unaccompanied Minor service. This chapter focuses on rebranding, digital enhancements, and process optimization to create a seamless, empathetic experience for children and caregivers while improving operational efficiency.



D E V E L O P

4.1 Designing Solutions for the UM Service

Building on the insights and analyses from the Discover and Define phases, the Develop phase focuses on creating tangible solutions to address the challenges identified in the Unaccompanied Minor service. This phase aims to deliver a comprehensive set of recommendations and redesigns that align with KLM's strategic goals and desired brand positioning within the orange-brown Needscope.

Objectives for the Develop Phase

In this phase, the focus will be on designing and refining the following outcomes:

- Future Roadmap: A strategic plan outlining the steps needed to implement the proposed solutions and achieve long-term improvements.
- Recommendations and Redesigns for Information Content: Enhancing clarity and accessibility of information provided to caregivers and UMs, ensuring consistent and effective communication.
- Renaming of the service: Updating the name to better reflect its purpose, audience, and alignment with KLM's brand identity.
- Redesign of the UM Necklace Wallet: Creating a user-friendly, visually appealing, and functional design that aligns with KLM's brand identity.
- Recommendations for an Educational Program: Developing a structured training program for staff handling UMs to ensure consistent and empathetic service delivery.
- Redesign of the AFS UM Desk: Improving the desk's layout and functionality to provide a better user experience for caregivers and children.
- Redesign for JJJ: Enhancing the processes and tools used in this context to streamline operations and improve stakeholder coordination.
- Future Research Opportunities: Identifying additional areas for exploration to support continuous improvement of the UM service.

By focusing on these deliverables, the Develop phase aims to bridge the gap between the current state of the UM service and KLM's vision for the future. The proposed designs and recommendations will prioritize both immediate improvements and long-term strategic goals, ensuring the service becomes a key differentiator for KLM while resonating with the values of the orange-brown Needscope.

4.2 Renaming the Service

From Unaccompanied Minor to Kids Solo

The Unaccompanied Minor service provides care and guidance for children traveling without a parent or guardian. While the current name is functional and widely recognized in the aviation industry, renaming the service offers opportunities to better align with customer needs, KLM's branding strategy, and overall customer experience. This transition has already been adopted by airlines such as Air France, highlighting its feasibility.

Advantages of Renaming to "Kids Solo"

- Accessibility and Appeal
 - The name "Kids Solo" is playful and approachable, creating a positive association for both children and parents. It emphasizes independence, helping parents feel confident about the service.
- International Comprehensibility
 - "Kids Solo" is simple and intuitive in English, making it easy to understand across KLM's global audience and requiring minimal explanation.
- Marketing Potential
 - A refreshed name allows for repositioning the service in the market. "Kids Solo" can be branded as a premium, customer-focused offering, enhancing perceptions of quality and care while differentiating KLM from competitors.
- Avoiding Negative Associations
 - "Unaccompanied Minor" may sound overly formal and emphasize that the child is "unaccompanied," which could be off-putting for caregivers. In contrast, "Kids Solo" conveys a sense of independence, adventure, safety, and care.

Alignment with the NeedScope Dimension

The brown/orange dimension in the NeedScope model emphasizes values such as reliability, care, authenticity, and a warm, personal touch. "Kids Solo" aligns better with this dimension in several ways:

- Warmth and Care
 - "Kids Solo" reinforces the warm and empathetic image KLM seeks to project, balancing professionalism with personal attention for children.
- Reliability and Simplicity
 - The positive tone of "Kids Solo" replaces the formal and distant tone of "Unaccompanied Minor," making the service feel more reliable and customer-friendly.
- Brand Consistency
 - This new name supports KLM's customer-centric and modern image while aligning with the brown/orange dimension of the NeedScope model, emphasizing values such as care, authenticity, and a personal touch.
- Experience and Emotion
 - "Kids Solo" inspires a sense of adventure and independence for children while reassuring parents of safety and care. These emotional associations strengthen the customer's connection to KLM, enhancing their overall experience.

Conclusion

Renaming the Unaccompanied Minor service to Kids Solo represents an opportunity to modernize and enhance the accessibility and emotional appeal of the service, aligning it with KLM's branding goals. To balance innovation with continuity, KLM can retain "Unaccompanied Minor" as the internal term for legal and operational purposes. This dual approach allows KLM to modernize its public-facing branding while maintaining compliance with aviation standards and the trust built around the existing name.

REQUIREMENTS



Alignment with KLM's Brand Values

The renaming concept aligns with KLM's orange-brown branding position in the NeedScope model. The new name, "Kids Solo," emphasizes warmth, friendliness, and approachability. This directly supports KLM's strategic aim to evoke care, safety, and independence while maintaining a professional tone.



Inclusivity for Age Groups

The new name caters to a broad age range, from younger children to teenagers. While the term "Kids" might lean more towards younger audiences, the overall branding and communication strategy can ensure inclusivity for older UMs by tailoring marketing and visual identity to address their maturity and needs.



Focus on Low Hanging Fruit

Renaming the service is a relatively straightforward initiative compared to more complex system overhauls. It requires changes to marketing materials, communication, and some internal adjustments, making it an achievable, impactful improvement. Other airlines have already implemented similar changes, demonstrating the feasibility and value of this initiative.



Address Emotional Touchpoints

The renaming concept directly tackles negative emotional responses associated with the term "Unaccompanied Minor." By introducing a more engaging and positive name, the service reduces potential stigma and fosters a sense of excitement and adventure for children.



The logo features a white crown icon above the text "KLM Kids Solo" in a bold, white, sans-serif font, set against a light blue background.

4.3 Redesign of the Website

The KLM Unaccompanied Minor service website serves as a touchpoint for caregivers and families seeking information about the service. However, findings from the Discover phase revealed challenges with the current website (Appendix F). The data showed that not all desired information is present or clear. The information structure lacks clarity, and users frequently report difficulty finding essential details, leading to confusion and increased inquiries to customer service. To address these issues, a redesigned version of the UM service website was developed, as shown in Figure 43.

Key Improvements in the Redesign

The redesigned website addresses the challenges with the following enhancements:

- **Streamlined Information Structure:** Content is organized into clear sections providing users with an intuitive navigation experience.
- **Integrated FAQ Section:** Common questions and concerns are embedded directly within the content, offering immediate answers without additional navigation.
- **Improved Visual Hierarchy:** The design incorporates clear headings, bullet points, and icons, improving readability and accessibility.
- **Brand Alignment:** The redesign reflects the core values of the orange-brown Needscope, emphasizing care, reliability, and clarity through both tone and aesthetics.

Expected Benefits

The redesigned website is expected to:

- **Enhance User Experience:** Caregivers will find it easier to access and understand key information about the UM service.
- **Reduce Support Inquiries:** A clearer presentation of information and processes will decrease the volume of calls and messages to customer service.
- **Strengthen Brand Perception:** By aligning with KLM's branding the redesign will reinforce the airline's reputation for peace of mind.

Conclusion

The redesigned website addresses the gaps identified in the current UM service webpage and sets a new standard for clarity and usability. By prioritizing user needs and aligning with KLM's brand values, the redesign not only enhances the digital experience but also supports the broader strategic goals of the UM service.

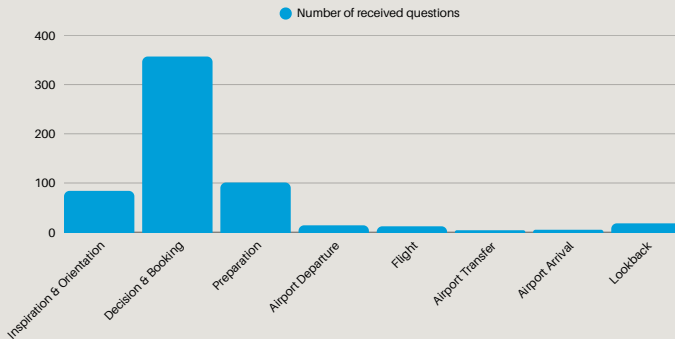
Figure 43
Website Redesign. Image created by the author (2025).



Scan the QR code to view the new website or [click here](#).

Explaining the Concept with Research Insights

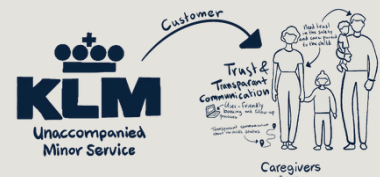
Aligns with the period in the process when most questions are received.



"Uncertainty is the breeding ground for anxiety; clarity and preparation are its antidotes."
– Grupe & Nitschke (2013)



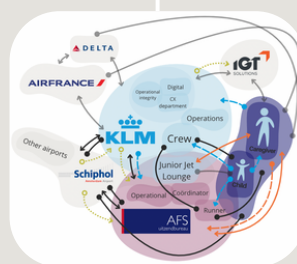
Helps KLM differentiate from other airlines through 'Peace of Mind'.



Focus on the needs tailored to the customer.



Answers all frequently asked questions currently received through social media.



Creating a bond of trust between AFS and caregivers by providing earlier information about AFS as an intermediary company.

REQUIREMENTS



Improve Communication with Caregivers and Children

The redesign creates a centralized platform for clear and accessible communication tailored to both caregivers and UMs. It reduces confusion and ensures both groups feel well-prepared.



Supporting Key Differentiators

- **Peace of Mind:** By offering clear and structured information, the website reduces uncertainty for caregivers and UMs, creating a sense of calm and trust.
- **Meaningful Interactions:** The website bridges the gap between KLM and users by delivering empathetic communication through preparation guides and personalized touchpoints.
- **Convenient Transfers:** The inclusion of detailed instructions and transfer-related tips helps streamline the journey for caregivers and children.



Focus on Low-Hanging Fruit

Redesigning the website is a relatively simple and cost-effective initiative compared to more complex operational changes. It provides significant improvements with minimal resource investment.



Enhance Pre-Travel Information

Adding preparation tools, such as checklists and detailed information, ensures that caregivers and UMs know exactly what to expect.



Address Emotional Touchpoints

The website redesign helps reduce stress and uncertainty for both caregivers and UMs by addressing key emotional moments in the journey. By providing clear, empathetic, and reassuring communication, it ensures that users feel supported during potentially stressful times.



Simplify and Clarify Use of UM Forms

The website redesign provides clear explanation of how to fill out and use UM forms, ensuring caregivers and children understand the process. By offering step-by-step instructions or even digital alternatives, it minimizes errors and confusion.



Streamline Check-In and Desk Processes

The redesigned website includes clear information about check-in procedures, what to expect at the desk, and any documents needed. This preparation reduces waiting times and makes the process more efficient for both caregivers and staff.

4.4 Redesign of the UM Wallet

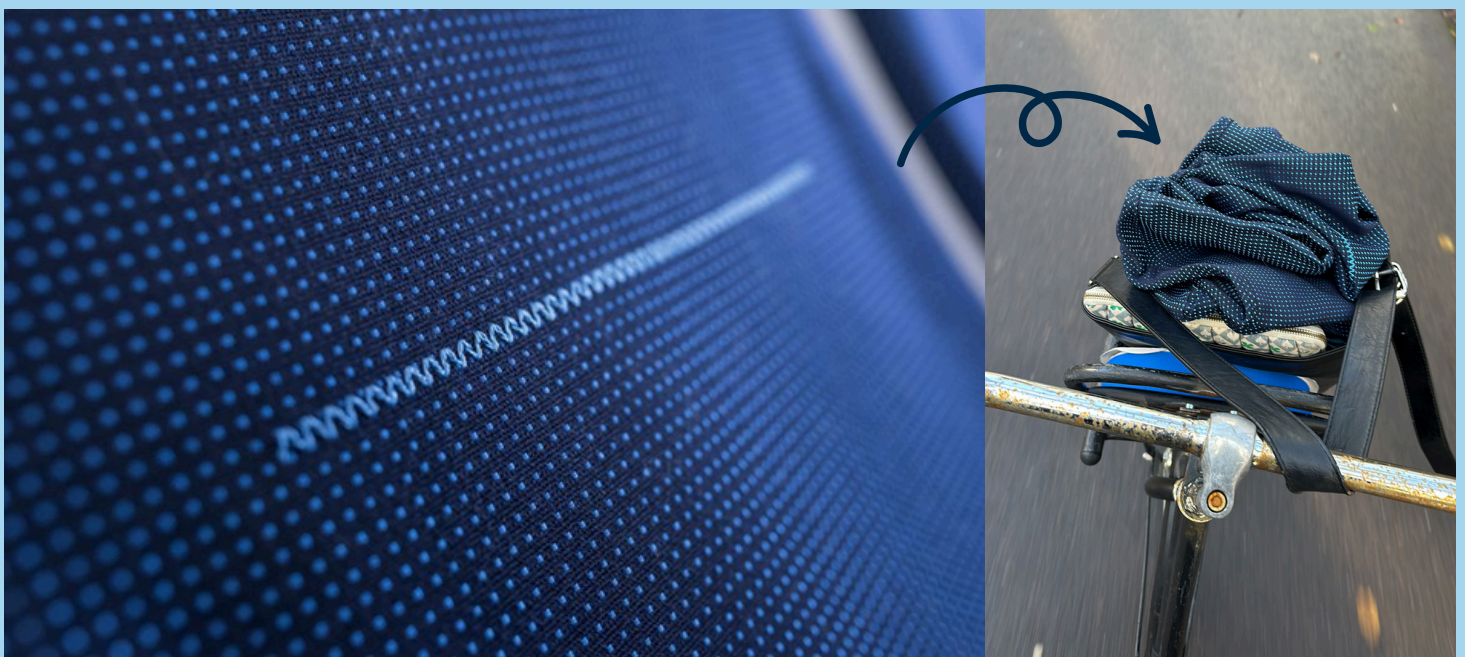
Based on the findings from the Discover phase regarding the UM necklace wallet, I explored potential redesigns for this product. As previously discussed, it is currently not feasible to expand the service with additional digital functionalities. Therefore, I focused on offline alternatives for the existing wallets. The next page showcases a "How-Might-We" framework, where I considered various ways to keep small items together. The product must ensure that all travel documents remain together and can be conveniently handed over when needed.

In combination with research into suitable materials, this led to the current design proposal, shown on the following pages. Within KLM, many existing products are made from various fabrics. Over time, a significant portion of these materials is replaced, leaving behind unused fabric stock (see Appendix G). Currently, these materials lack a clear purpose, making them ideal for repurposing into a new form. The redesigned wallet aligns much better with KLM's branding, giving UMs a sense of being part of the crew. Additionally, these high-quality materials are durable, washable, and suitable for reuse within the service.

To explore these materials further, I visited Schiphol Oost, where the fabrics are stored, and selected several samples for additional research (Figure 44). The wallet includes a compartment for passports and a pocket for other documents such as boarding passes and UM forms. It is attached to a ring that can easily clip onto clothing or a bag. Additionally, the ring could hold an extra item that clearly identifies the child, even when the wallet is temporarily removed.

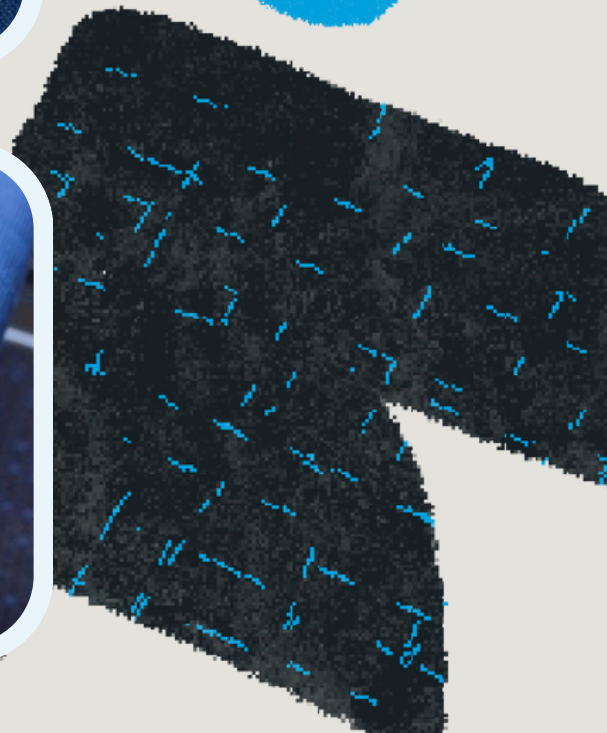
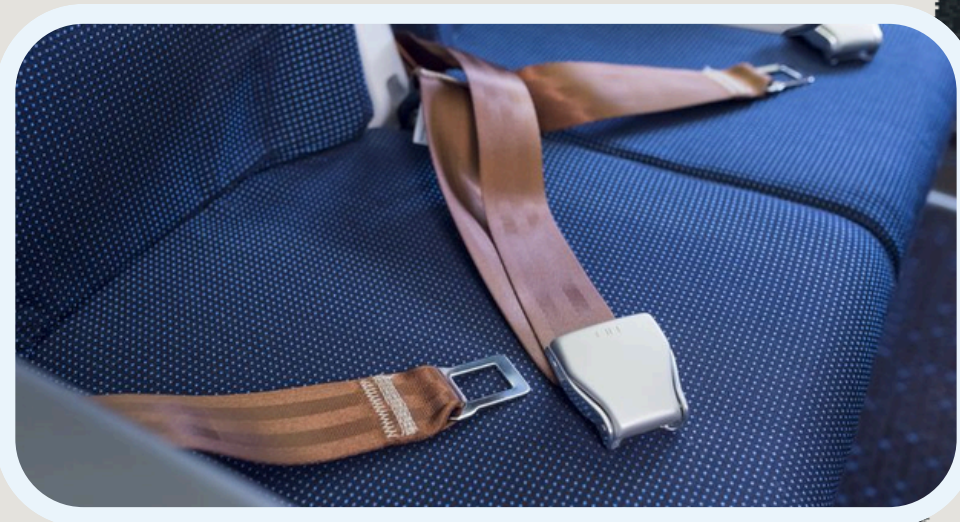
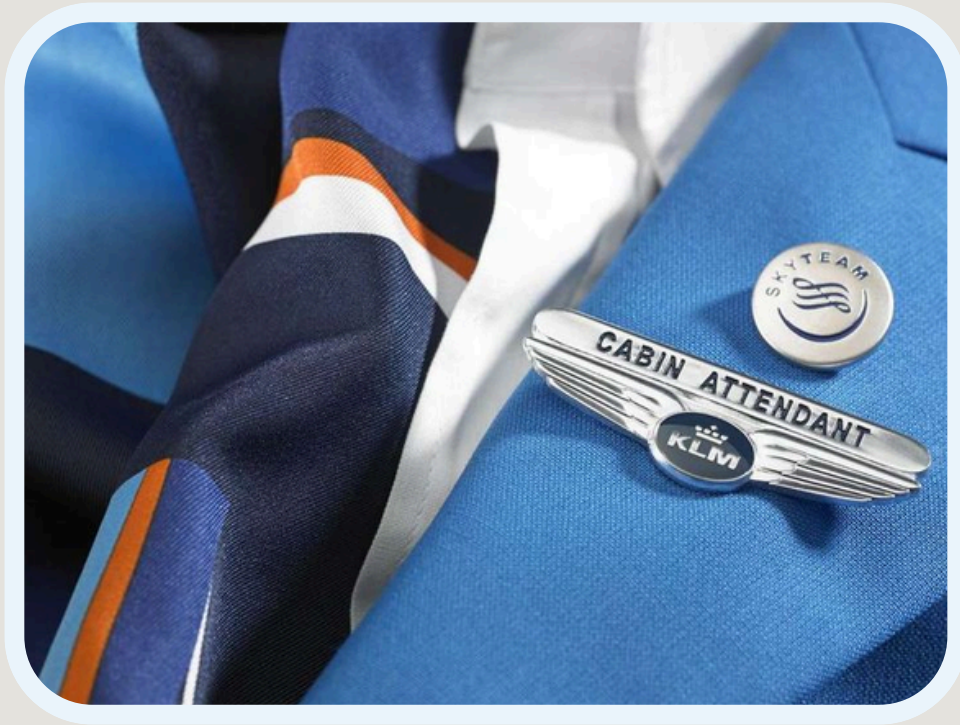
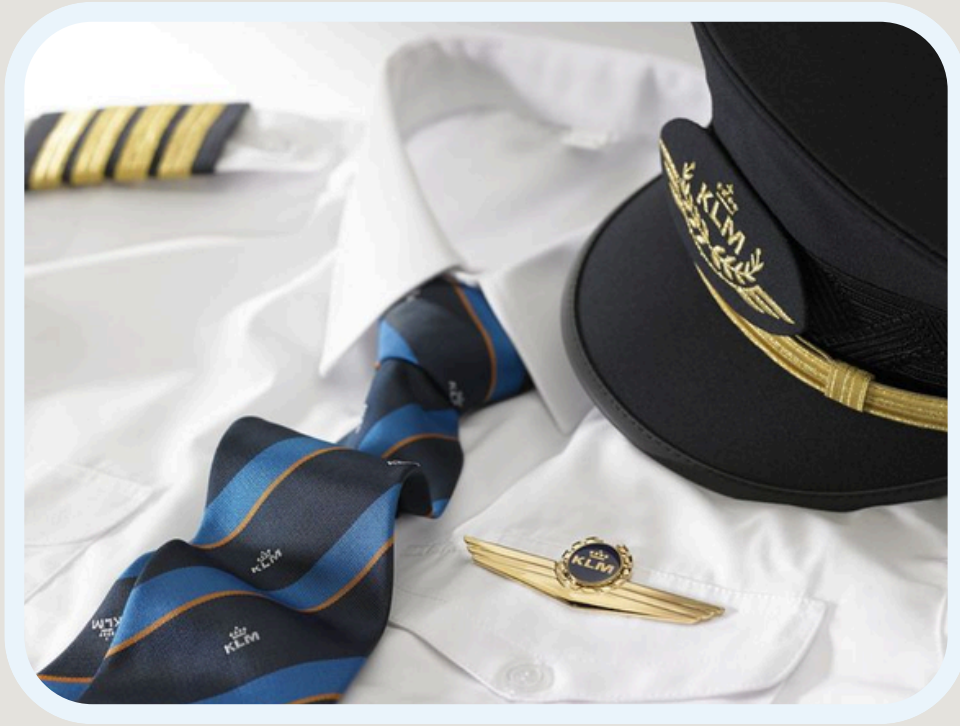
The redesign also presents an opportunity to consider a more efficient organizational system within the Junior Jet Lounge. By integrating these improvements, the UM necklace wallet can better meet stakeholder needs while maintaining alignment with KLM's branding and operational goals. As is clearly evident, this redesign is a concept that will need to be developed in much greater detail before implementation. Important aspects such as dimensions, the creation process, and distribution will require further investigation.

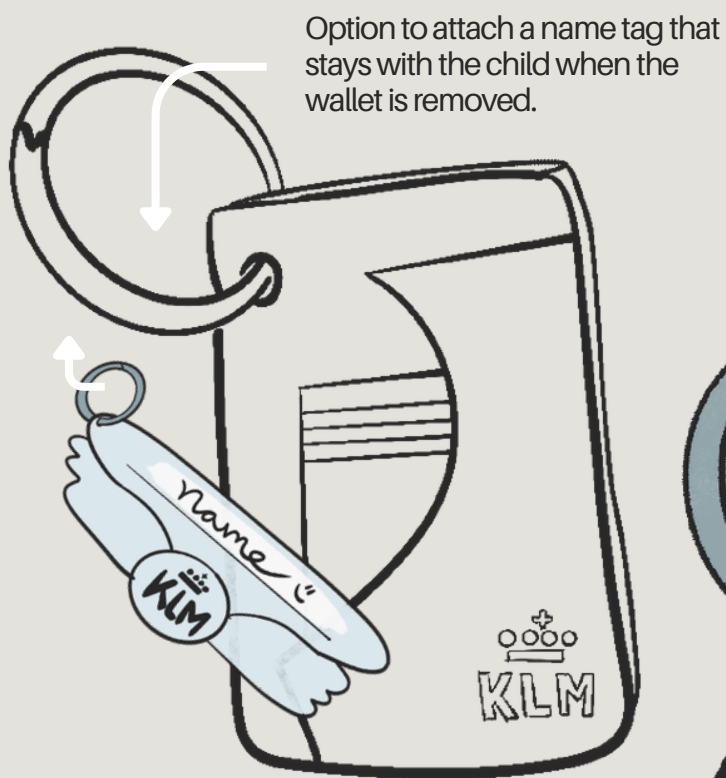
Figure 44
Website Redesign. Image created by the author (2025).



Keep (Small) items together

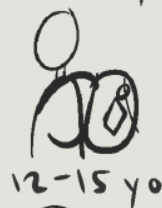






Option to attach a name tag that stays with the child when the wallet is removed.

Different ways to carry it, offering a suitable option for every child and age group.



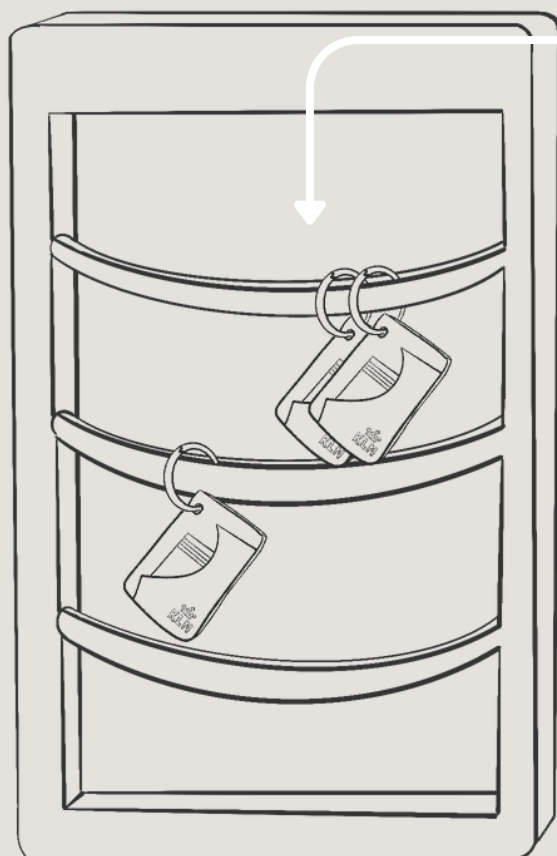
Aligned with KLM's branding and gives a sense of being part of the crew.

Made from recycled materials instead of plastic.



Easily reusable.

Easy to hang, offering possibilities for an organized system in the Junior Jet Lounge.



Replaceable card with specific information about the UM.



Explaining the Concept with Research Insights



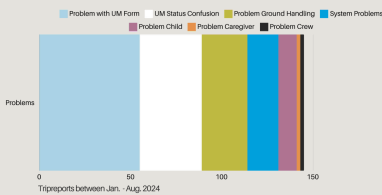
Helps KLM differentiate from other airlines through 'Meaningful Interactions' by giving the wallet a sense of belonging to KLM and the crew.



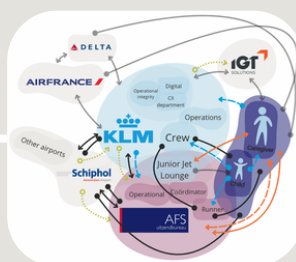
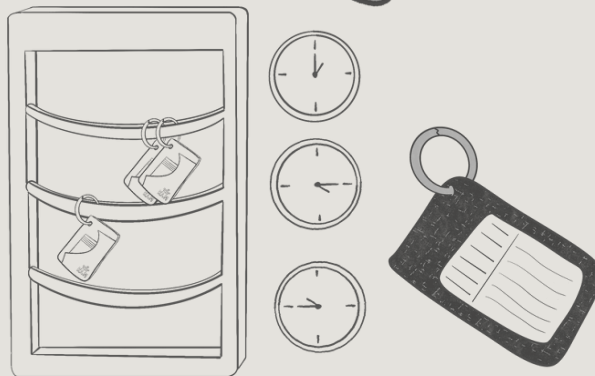
Focus on the needs tailored to the customer.



Addresses all mentioned feedback and comments on the current necklace design.



Solves issues with ground handling and identification of the UM.



Improves collaboration between KLM and AFS by incorporating AFS's needs into the design.



Aligns with the desired NeedScope positioning of KLM.

REQUIREMENTS



Alignment with KLM's Brand Values

The redesigned UM Wallet reflects KLM's core values, such as reliability, care, and user-friendliness. The modern and professional design instills confidence and enhances KLM's customer-focused image.



Inclusivity for Age Groups

The redesign considers the diverse age range of UMs (5–18 years) by offering an accessible design that is appealing to younger children while still being practical and professional for older teenagers.



Improvement of UM Necklace Functionality

The functionality of the UM Necklace has been enhanced with a user-friendly and durable layout, ensuring that essential information is readily available to ground staff and crew. Visibility of departure and arrival times on the wallet allows for quick and easy access to flight details, reducing errors.



Minimize Dependency on the Digital Department

The redesign does not rely on complex digital integrations, making it immediately implementable without depending on KLM's digital development resources.



Improvement at Operational Level

The redesigned UM Wallet improves operational efficiency, particularly in the Junior Jet Lounge. The new design allows the wallets to be hung in an organized manner based on departure times, rather than being stored in a large bin as they currently are. This reduces the time needed for staff to locate a specific wallet and ensures a smoother process and less stress during high-traffic moments.



Provide Personalized and Inclusive Solutions

The wallet allows for personalization options, such as a name label, ensuring that each UM feels recognized and cared for. This supports an inclusive and customer-focused service.

4.5 Redesign of the KLM Unaccompanied Minor Check-In and AFS UM Desk at Schiphol

Based on the findings outlined in the Discover phase, I explored a redesign of the check-in procedure and the AFS UM Desk at Schiphol Airport. The goal was to create a design that perfectly aligns with KLM's desired branding, supports the needs of all stakeholders, and addresses the current pain points in the process. This conceptual design represents an ideal future state—a vision of how the UM service could evolve to fully embody KLM's aspirations.

Visionary Design

Figure 45 illustrates two examples of what this future design could look like. It presents a dedicated UM check-in area with clear signage, comfortable spaces for children and caregivers, a professional appearance. This design prioritizes trust, care, and efficiency, aligning with KLM's branding in the orange-brown Needscope. It also addresses stakeholder needs by ensuring a seamless and stress-free experience. The desk combines the two counters that caregivers need to visit right now. Reducing the number of steps creates greater peace of mind for caregivers and children and improves efficiency.

However, this comprehensive design requires significant investment, space, and regulatory considerations, making immediate implementation challenging. Factors such as budget constraints and airport regulations mean this ideal vision must be approached incrementally.

Practical Redesign for Immediate Implementation

To take a step in this direction, I developed a redesign for the existing AFS UM Desk that can be implemented in the near term. The following pages showcase this practical solution—a low-threshold design that retains many of the improvements from the visionary concept while working within current constraints. This redesign focuses on:

- Improved Visibility: Enhanced signage and branding to make the desk easily identifiable.
- Optimized layout: Optimized desk for clear information about what to expect and what to check.
- Comfortable Interactions: Providing a pleasant place to say goodbye through clear expectations and a cheerful atmosphere.

Conclusion

The visionary design provides a long-term goal for how KLM's UM service can evolve, while the practical redesign offers a feasible first step. By implementing the immediate redesign, KLM can begin addressing key stakeholder needs and building toward the ultimate vision for an improved UM check-in experience. This approach ensures steady progress while respecting current limitations and operational realities.

Figure 45
Visionary Design Kids Solo check-in desk.
AI-generated image created by the author using DALL-E (2025).



A prominent and easy to recognize space dedicated to UMs

Providing Information

Implementation of digital automation to enhance efficiency

Appearance that fits the desired location in the needscope



A safe and professional space that contributes to peace of mind

A remarkable design within the KLM brand identity

A relaxed space to wait and say goodbye

Figure 46
Walking route UM

Floor Markings for Improved Navigation at Schiphol Airport

One of the current challenges at Schiphol Airport is the difficulty in locating the KLM AFS UM desk. Since relocating the desk is not feasible at this time, I explored ways to make it easier to find. Drawing inspiration from KLM's branding guidelines, particularly the "journey stroke" design (Appendix H), I developed a solution that uses this element as a literal guiding line on the floor. This approach simplifies navigation while maintaining alignment with KLM's visual identity.

The proposed solution involves creating a floor line that connects key areas, such as the check-in desk and the AFS UM desk. This line serves as a visual guide, making the route logical and easy to follow for both caregivers and children. For children, this approach transforms navigation into a playful experience, akin to a treasure hunt, as they follow the line to their next step. The concept provides clarity and organization without requiring significant operational changes.

The design is simple and can be directly implemented. The line ensures a clear and intuitive path, reducing confusion for travelers. Additionally, the concept can be expanded to other areas of the airport. For example, different colors or line styles could guide passengers with other special needs, creating a cohesive system for all.

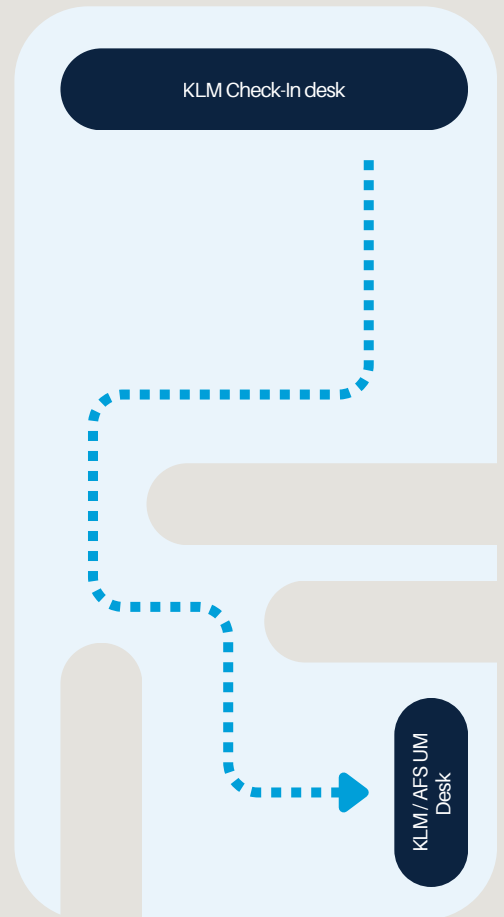
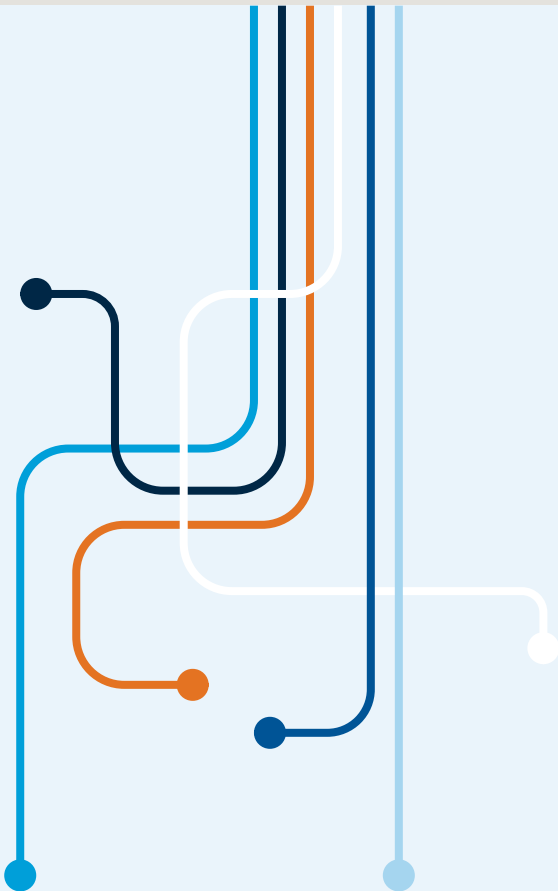


Figure 47
Redesign walking routes Schiphol. Image created by the author (2025).



Providing Clarity and Comfort Through Information

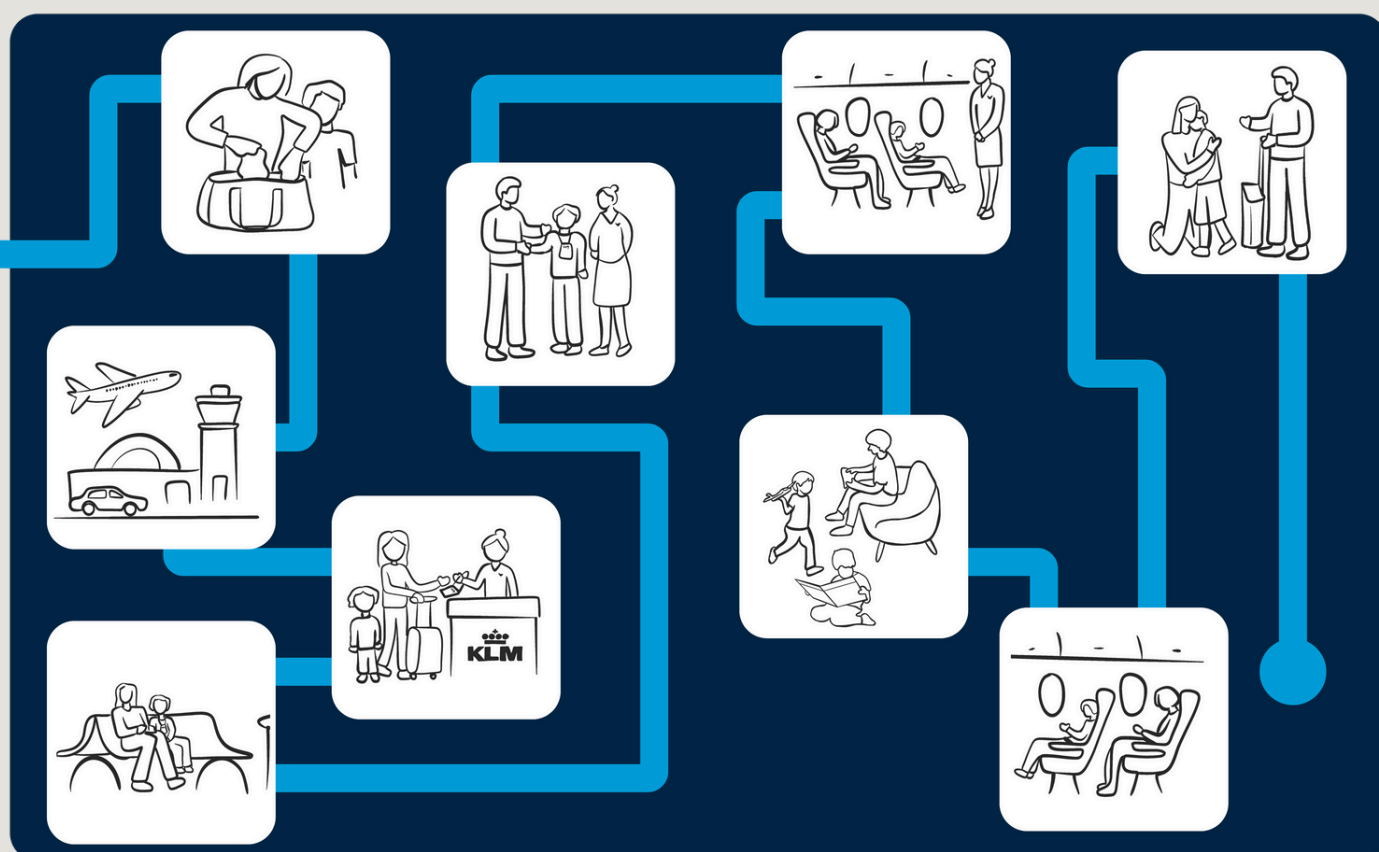
Knowing what to expect is important for both children and their caregivers, as it reduces uncertainty and alleviates anxiety. KLM aims to differentiate itself from other airlines with its key differentiator, "peace of mind." Achieving this requires providing clear information so caregivers and children understand what lies ahead. Anxiety often stems from uncertainty, and by offering detailed guidance, negative emotions can be significantly reduced. (Grupe & Nitschke, 2013)

While much of the UM service information is available on the redesigned website, Schiphol itself presents an ideal location for providing specific details about the airport process. At this stage of the journey, it is guaranteed that both caregivers and children will receive the correct information. Additionally, the time spent waiting at the KLM AFS UM desk, which typically ranges from 1 to 1.5 hours, offers an excellent opportunity to communicate this information effectively.

Based on frequently asked questions and the previously mentioned service overview, a comprehensive list of relevant details has been developed. Materials were then created to present this information at the desk. These materials are tailored to both caregivers and children, with specific content and visuals designed to cater to different age groups within the UM category. The materials focus on guiding children through the various steps of the process to ensure they feel reassured and prepared. Additionally, providing clear information ensures that caregivers are better prepared and can double-check the final details. This should help reduce issues for AFS and KLM related to incomplete documentation.

All information is presented in a style that aligns with KLM's current brand guidelines and the desired visual identity. The materials will be displayed at the existing KLM AFS UM desk, with information distributed across various elements: some on the board, some on the wall, and some on the desk itself. Additionally, the desk itself has been redesigned to make it more noticeable and better aligned with the updated Kids Solo branding. These changes, as well as the redesigned desk, can be seen in the images on the following pages.

Figure 48
Process Overview Visuals. Image created by the author (2025).



Wat je kunt verw

Alleen vliegen kan best spannend
comfortabel en veilig verloopt. Hier

Wat gebeurt er voordat je vertrekt?

1

Aankomst op de luchthaven:

- Je ouder of verzorger brengt je naar de luchthaven. Bij de incheckbalie krijg je een speciale ketting met een mapje. Hierin zitten je paspoort, ticket en andere belangrijke papieren.

Wachten bij de Kids Solo balie:

- Samen met je ouder of verzorger wacht je bij de Kids Solo balie. Ongeveer een uur voor vertrek komt er iemand van AFS (Airport Facilitation Services) om je op te halen.

Afscheid nemen:

- Bij de balie zeg je gedag tegen je ouder of verzorger. Vanaf hier begeleidt iemand van AFS je door de beveiliging naar de gate.

Bij de gate:

- Soms moet je bij de gate nog even wachten, maar je mag als een van de eersten het vliegtuig in.

In het vliegtuig:

- Bij het instappen word je voorgesteld aan de crew. Zij zorgen goed voor je tijdens de vlucht. Dit is ook het moment waarop je afscheid neemt van je AFS begeleider.

Een goede reis gewenst!

Aan boord van het vliegtuig

Jouw plek:

- De steward of stewardess laat je zien waar jouw stoel is. Hier kun je je lekker installeren voor de vlucht.

Iets lekkers kiezen:

- Tijdens de vlucht mag je iets lekkers te eten of drinken uitkiezen ter waarde van ... (bedrag invullen).

Hulp vragen:

- Heb je iets nodig of een vraag? De steward of stewardess is er om je te helpen! Je mag altijd om hulp vragen.

Geniet van je vlucht en veel plezier!

Wat gebeurt er tijdens een overstap?

Uitstappen:

- Wacht tot alle passagiers zijn uitgestapt, daarna helpt de crew je het vliegtuig te verlaten.

Begeleiding:

- Een medewerker van het vliegveld brengt je naar de gate van je volgende vlucht.

Wachten:

- Soms moet je even wachten. De medewerker blijft bij je en brengt je naar een speciale lounge voor alleen reizende kinderen.

Instappen:

- Je ontmoet de nieuwe crew, neemt afscheid van de medewerker, en gaat lekker zitten voor het volgende deel van je reis.

3

2

Wachten tijdens je reis

zijn, maar bij KLM zorgen we ervoor dat jouw reis leuk, er is een overzicht van hoe jouw dag eruitziet:



Wat gebeurt er als je vliegtuig is geland?

Rustig wachten:

- Zodra het vliegtuig is geland, blijf je even zitten terwijl alle andere passagiers uitstappen.

Jouw beurt:

- Als iedereen uitgestapt is, begeleidt een crewlid jou uit het vliegtuig.

Ontvangst door het vliegveldteam:

- Bij de gate staat iemand van het lokale vliegveld op jou te wachten. Deze persoon brengt je naar de aankomsthal.

Aankomsthal:

- In de aankomsthal staat de persoon die jou ophaalt al klaar.

Controle:

- De medewerker van het vliegveld controleert het ID van de persoon die jou komt ophalen om zeker te weten dat alles klopt.

Klaar om te gaan:

- Je zegt de begeleider gedag en bent helemaal klaar om van je bestemming te genieten.

Veel plezier en een fijne tijd op je bestemming!

Tips voor jou:

Vragen of hulp nodig?

- Heb je een vraag of voel je je niet fijn? Laat het gerust weten aan een van de medewerkers. Zij helpen je graag!

Iets leuks meenemen:

- Neem iets mee om jezelf bezig te houden, zoals een knuffel, een spelletje of een leuk boek.

Entertainment aan boord:

- Op sommige vluchten is er een schermje in je stoel. Hierop kun je spelletjes spelen, films kijken of andere leuke dingen doen!





Welkom!

Kids Solo



Fijn dat jullie er zijn!

Bel: +316 82 05 26 84

Laat ons weten dat jullie aanwezig zijn.

U kunt hier samen nog even wachten. Één uur voor vertrek wordt de Unaccompanied Minor (UM) opgehaald.

Is alles geregeld?

Controleer de volgende punten:

- ☐ De UM is ingecheckt en de boardingpass is aanwezig
- ☐ Alle 4 de formulieren zijn volledig ingevuld
- ☐ Gegevens van de persoon die de UM ophaalt zijn correct
- ☐ Eventuele visa is in orde
- ☐ Bestemmingsvereisten gecontroleerd via nederlandwereldwijd.nl/reisadvies

Na het ophalen bij deze balie begeleiden onze medewerkers uw kind door de beveiliging naar de gate. Hier wordt uw kind overgedragen aan de crew van KLM.

Belangrijke informatie:

Blijf op de luchthaven tot de vlucht daadwerkelijk is vertrokken. In geval van wijzigingen of noodsituaties kunnen wij u dan direct informeren en vragen het kind weer op te halen.

Bedankt voor uw medewerking en geduld!
KLM

Wat je kunt verwachten tijdens je reis

Alleen vliegen kan best spannend zijn, maar bij KLM zorgen we ervoor dat jouw reis leuk, comfortabel en veilig verloopt. Hier is een overzicht van hoe jouw dag eruitziet:

Welkom!

Kids 5-10

Fijn dat jullie er zijn!

Bel: +316 62 06 26 84

Wat kan ik voor jullie doen?

Is alles geregeld?

Wat kan ik voor jullie doen?

1 Wat gebeurt er voordat je vertrekt?

Check-in en bagage

- Jullie check-in op de vlucht en krijgen een kaartje en een bagageetiket.
- Jullie krijgen een bagageetiket en een kaartje.

Beveiliging

- Jullie worden gecontroleerd op de vlucht.
- Jullie worden gecontroleerd op de vlucht.

3 Wat gebeurt er tijdens een overstap?

Overstap

- Jullie worden begeleid naar de overstap.
- Jullie worden begeleid naar de overstap.

Beveiliging

- Jullie worden gecontroleerd op de vlucht.
- Jullie worden gecontroleerd op de vlucht.



Aan boord van het vliegtuig

Check-in

- Jullie worden begeleid naar de overstap.
- Jullie worden begeleid naar de overstap.

Beveiliging

- Jullie worden gecontroleerd op de vlucht.
- Jullie worden gecontroleerd op de vlucht.

4 Wat gebeurt er als je vliegtuig is geland?

Overstap

- Jullie worden begeleid naar de overstap.
- Jullie worden begeleid naar de overstap.

Beveiliging

- Jullie worden gecontroleerd op de vlucht.
- Jullie worden gecontroleerd op de vlucht.

Tips voor jou:

Vragen of hulp nodig?

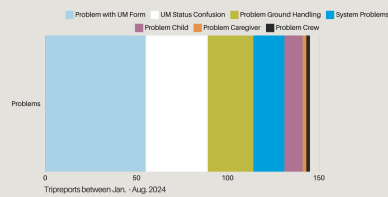
- Heb je een vraag? Laat het weten aan een van de medewerkers. Zij helpen je graag.
- Heb je een vraag? Laat het weten aan een van de medewerkers. Zij helpen je graag.

Entertainment aan boord:

- De medewerkers van het vliegtuig kunnen jullie helpen met allerlei vragen.
- De medewerkers van het vliegtuig kunnen jullie helpen met allerlei vragen.

Explaining the Concept with Research Insights

Focuses on improving a moment where the current design evokes negative emotions.



Solves issues with paperwork through clearer information and a checklist.

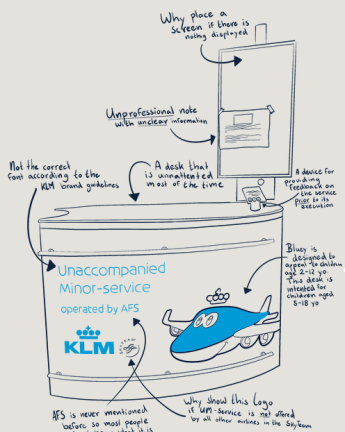
Frequently asked questions

- Inspiration & Orientation**
 - When is it required to book a UM service? (mandatory/optional)
- Decision & Booking**
 - How do I book the UM service?
 - Can I add the UM service to an existing booking?
 - Can I book the service for a child over the age of 16?
 - Is it mandatory to book the service if I'm traveling in a different class than my child?
- Preparation**
 - Can I reserve a seat for my child?
 - What should I prepare for the trip?
 - Can I receive a confirmation of the booking itinerary?
- Airport (departure)**
 - Drop-off Location and Timing
 - Where is the UM drop-off location, and do I need a pass to accompany the child?
 - When should I arrive drop-off my child at the airport?
 - Pass and Documentation Requirements
 - Do I need a pass to accompany the child to the drop-off location?
 - What documents should I prepare for the drop-off?
 - What paperwork or documents are required for dropping off the UM?
 - Procedures for Drop-off
 - What are the steps and procedures for dropping off the UM at the airport?
 - Do I need to wait at the airport until the flight takes off?
- Flight**
 - What is the flight status?
 - Can you send me notifications if I do not want to log in? (booking changes, flight changes)
 - Request contact information of cabin/ground crew.
- Airport Transfer**
 - What will my child do/where will my child stay while waiting at the airport?
 - Will you provide a meal voucher for my child while waiting at the airport?
 - What will happen in case of delays/misconnects/transfer periods?
 - Can I get validation that someone will accompany my child? (during delay period)
- Flight** (see questions above)
- Airport arrival**
 - Where is the UM pickup location?
 - What are the procedures/steps to be taken for pickup?
- Lookback**
 - Refund/claim

Provides answers to frequently asked questions currently received through social media.



Focuses on improving a moment where the current design triggers negative emotions.



Addresses all mentioned feedback and comments on the current desk design.



Helps KLM differentiate from other airlines through 'Peace of Mind' and 'Meaningful Interactions'.



Aligns with the desired NeedScope positioning of KLM.

REQUIREMENTS



Alignment with KLM's Brand Values

The redesigned desk reflects KLM's focus on warmth, reliability, and care. The new layout and visual identity are designed to be inviting and approachable, aligning with the orange/brown NeedScope values.



Supporting Key Differentiators

- **Peace of Mind:** The redesigned desk provides clear processes and improved visibility, helping caregivers and children feel more at ease.
- **Meaningful Interactions:** A welcoming design encourages more personal and empathetic communication between staff and customers.
- **Convenient Transfers:** The efficient layout and clear instructions reduce confusion and improve the overall check-in and transfer experience.



Inclusivity for Age Groups

The desk design caters to the needs of both younger children and older teenagers by being visually engaging yet professional. For caregivers, the information is presented in a clear, adult-friendly manner. A low information counter for younger children to interact and bright but non-overwhelming visuals ensure accessibility for all.



Dual Audience Support

The redesign ensures the needs of both children (as the consumers) and caregivers (as the customers) are addressed. Children benefit from the friendly, organized space, while caregivers receive clear instructions and reassurance.



Improve Communication with Caregivers and Children

The desk layout and signage ensure that information is clearly communicated at all stages of the process. Visual and textual cues are designed to be easily understood by both caregivers and UMs.



Address Emotional Touchpoints

The redesigned desk creates a welcoming and less intimidating environment, reducing anxiety for both children and caregivers. It emphasizes warmth and care, critical during emotionally charged moments like departures.



Streamline Check-In and Desk Processes

The improved desk layout provides a clearer route from the check-in desk to the UM desk, reducing confusion and ensuring a smoother flow of operations. Parents and children have a better understanding of what to expect thanks to improved signage and communication. Additionally, the checklist helps caregivers know exactly what to prepare and verify, streamlining the entire process.



Simplify and Clarify Use of UM Forms

The redesigned desk includes a checklist that provides a clear overview for caregivers, outlining exactly what they need to arrange and how to complete the UM forms. The checklist ensures caregivers understand how often the forms need to be used and filled out, reducing errors and confusion. This guidance helps streamline the process for both caregivers and staff.



Focus on Low-Hanging Fruit

Updating the desk layout and visual identity is a relatively simple improvement that requires minimal resources but delivers significant impact.



Minimize Dependency on the Digital Department

The redesign focuses on physical and operational improvements rather than requiring significant digital system changes.



Improvement at Operational Level

The redesign improves operational efficiency by ensuring that caregivers and children are better informed about what they need to do and where they need to be. This reduces the time staff spend explaining the process and checking for missing steps, allowing them to focus on more critical tasks. The optimized space and clear communication flow also contribute to a faster and more organized check-in process.

4.6 Redesign of the Junior Jet Lounge

The Junior Jet Lounge at Schiphol Airport also offers room for improvement. To illustrate how the lounge could evolve in the future, I developed a visionary design, shown in **Figure X**. This concept aligns fully with the previously identified needs of various stakeholders. However, similar to other visionary designs, this concept is currently not feasible for immediate implementation. Therefore, I have identified three core themes that outline what should be prioritized in the short term within the Junior Jet Lounge: "Safety & Comfort," "Playfulness & Discovery," and "Calm & Preparation."

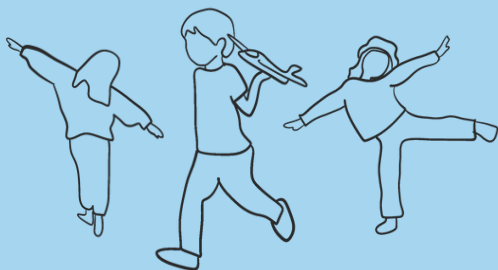
Safety and Comfort are essential to ensure children feel secure and at ease, directly supporting KLM's key differentiator, "Peace of Mind." Practical implementations include defined and organized spaces for supervision, child-friendly furniture and materials, and secured access to limit entry to authorized personnel and children.

Playfulness and Discovery aim to reduce stress and anxiety through engaging, interactive environments. Features such as mini-flight simulators, educational aviation corners, and age-specific activity zones can captivate children's curiosity and energy, complemented by colorful decor and interactive displays.

Calm and Preparation focus on ensuring children feel ready and confident for their journey. Quiet zones with comfortable seating, books, or videos provide relaxation, while informative boards or screens explain travel steps in a child-friendly manner. Additionally, a clear question point will allow children to interact with staff to address questions or concerns.

These three themes form the foundation for a better Junior Jet Lounge experience.

Safety and Comfort



Playfulness and Discovery

Calm and Preparation





Calm

Play

Relax

Comfort

Preparation

Discover

Safety

CABIN ATTENDANT
KLM

Figure 49
Visionary Design Kids Solo check-in desk. AI-generated image created by the author using DALL-E (2025).



Appearance that fits the desired location in the needscope

A relaxed space to wait with comfortable seating

Child-friendly furniture and materials

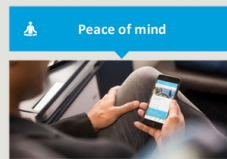
Age-specific activity zones

Providing Information

Activity zones that captivate children's curiosity and energy

A place to meet and talk to other solo travelers

Explaining the Concept with Research Insights



Helps KLM differentiate from other airlines through 'Convenient Connections,' 'Meaningful Interactions,' and 'Peace of Mind' by ensuring that UMs have a comfortable place to wait, where they are well-guided and informed.



Focuses on improving a moment where the current design triggers negative emotions.

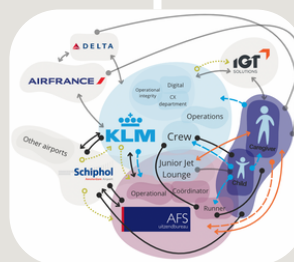
Improvements based on observed needs and feedback during visits to the Junior Jet Lounge.



Focus on the needs tailored to the customer.



Aligns with the desired NeedScope positioning of KLM.



Creating a bond of trust between AFS and UMs by providing proper guidance and clear information.



Alignment with KLM's Brand Values

The redesigned Junior Jet Lounge strongly aligns with the orange/brown dimension of KLM's NeedScope model, emphasizing care, warmth, and reliability. By creating a safe, playful, and calm environment, the redesign mirrors KLM's focus on exceptional service for families and children.



Supporting Key Differentiators

- **Peace of Mind:** The lounge provides a secure and welcoming space where children feel safe, reducing anxiety for both children and caregivers.
- **Meaningful Interactions:** Staff in the lounge are better equipped to provide personal and empathetic interactions due to improved workflows and space organization.
- **Convenient Transfers:** Clear zones and signage simplify the experience, especially during layovers, ensuring stress-free transitions.



Inclusivity for Age Groups

The redesign addresses the needs of a broad age range, from playful spaces for younger children to quiet relaxation zones for older minors. Separate areas for play, rest, and preparation allow the lounge to cater to different levels of maturity and independence. This ensures all children, regardless of age, feel comfortable and included.



Improve Communication with Caregivers and Children

Informative displays and child-friendly instructions in the lounge help children understand the process, while caregivers receive reassurance that their children are well-cared for.



Address Emotional Touchpoints

The redesign focuses on reducing stress and negative emotions during the waiting period by creating an engaging and relaxing environment. Interactive elements and comfortable seating help children feel more at ease.



Provide Personalized and Inclusive Solutions

The lounge redesign allows for flexibility in addressing individual needs and preferences. For example, children can choose between play areas, quiet zones, or educational activities.



Strengthen Coordination Between KLM and AFS

Although not directly mentioned in the lounge redesign, the space creates opportunities for seamless coordination between KLM and AFS by improving transitions and centralizing supervision points.



Scalability for Future Implementation

The redesign direction incorporates scalable elements, such as modular furniture and adaptable layouts, which allow for future expansions or upgrades as resources become available. The lounge can be adjusted to include more features or capacity as the service grows.

4.7 Education Program Guidelines for Staff (AFS & KLM)

To ensure consistent and high-quality service for Unaccompanied Minors, it is essential to implement an education program and set clear guidelines for both AFS and KLM staff. This program needs to focus on building confidence, improving communication skills, and ensuring operational consistency across all touchpoints of the UM journey. I have developed guidelines that can be used to create a comprehensive education program for AFS and certain parts within KLM.

The education program can include the following components:

- Core Training Modules
 - Customer-Centric Approach: Training on how to interact empathetically with children and caregivers, emphasizing trust and care.
 - Process Familiarization: Detailed instructions on the UM process, from check-in to pick-up, ensuring all staff understand their responsibilities.
 - Problem-Solving Skills: Guidance on how to handle unexpected situations, such as missing documents or anxious children.
- Scenario-Based Learning
 - Role-playing exercises to simulate real-life situations, helping staff build confidence and adaptability.
 - Feedback sessions to refine communication techniques and improve service delivery.
- Cultural Sensitivity Training
 - Understanding the diverse backgrounds of UMs and their caregivers to provide personalized and inclusive service.
- Digital Tools and Automation
 - Training on the use of any digital tools implemented for streamlining communication between stakeholders.

Guidelines for staff can include:

- Clear checklists for each stage of the UM journey.
- Standard operating procedures for common scenarios, ensuring consistency across all teams.
- Communication protocols for updating caregivers and handling sensitive situations.

By equipping staff with the necessary skills and knowledge, the program needs to create a seamless experience for UMs while reinforcing KLM's reputation for care and professionalism. The education program will align with KLM's strategic goals of operational excellence and customer intimacy, ensuring that every UM journey reflects the airline's core values.

Figure 50
Staff Interactions. Image created by the author (2025).





Supporting Key Differentiators

- **Peace of Mind:** By training staff to handle UMs with care and professionalism, the program reassures caregivers and children that they are in safe hands.
- **Meaningful Interactions:** The focus on empathy and clear communication equips staff to provide personalized and impactful experiences for UMs and caregivers.



Inclusivity for Age Groups

The program trains staff to adapt their approach based on the UM's age and level of independence, ensuring inclusivity for the 5–18 age range. Staff learn to engage younger children with care while offering more autonomy to teenagers.



Dual Audience Support

The education program emphasizes the importance of addressing the needs of both children and caregivers. Staff are trained to provide reassurance to caregivers while focusing on creating a safe and enjoyable experience for UMs.



Improve Communication with Caregivers and Children

The program enhances staff communication skills, ensuring consistent and clear messaging across all interactions. This reduces confusion for caregivers and children alike.



Address Emotional Touchpoints

The training program prepares staff to manage emotional moments during the UM journey, such as separation at check-in or waiting times in lounges. By addressing these touchpoints empathetically, staff can reduce stress for UMs and caregivers.



Strengthen Coordination Between KLM and AFS

The program fosters better collaboration between KLM and AFS by defining shared responsibilities and communication protocols. This reduces miscommunication and ensures seamless workflows.



Streamline Check-In and Desk Processes

The education program includes training on standardized procedures and efficient workflows for check-in and desk operations. This ensures a smoother and faster process for both staff and customers. Staff can learn to use updated checklists and tools to minimize errors and improve the efficiencies of operations at the desks.



Simplify and Clarify Use of UM Forms

Staff are trained to guide and check caregivers when filling out UM forms and ensure the forms are used correctly throughout the journey. This minimizes errors and confusion.



Improvement at Operational Level

By equipping staff with better skills and tools, the education program improves overall operational efficiency. Staff are better prepared to handle challenges and ensure a smooth workflow.

Chapter 5

D E L I V E R

The Deliver phase finalizes the Double Diamond process by outlining implementation and long-term strategies for KLM's Unaccompanied Minor service. This chapter presents a roadmap to address immediate needs, enhance user experience, and ensure future scalability.



Future Roadmap UM Service

Long-Term Goals:

Strategic Growth

- Utilize Feedback for Continuous Improvement
- Unified Check-In Desk
- All-Digital UM Journey
- Global Standardization of UM Processes
- Junior Jet Lounge Expansion

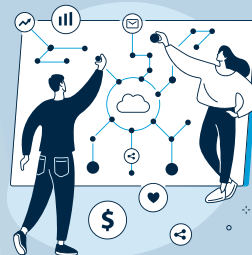


Long-Term Goals (18–36 Months)

Medium-Term Goals:

Implementation and Expansion

- Implement Redesigned UM Necklace Wallet
- Upgrade Junior Jet Lounge
- Feedback Collection System



Medium-Term Goals (6–18 Months)

Short-Term Goals:

Research and Testing

- Launch enhanced website
- Upgrade redesign and test new UM wallet
- Implement AFS UM desk redesign
- Staff training program rollout



Short-Term Goals (0–6 Months)

DELIVER

5.1 Future Roadmap for KLM's UM Service

The Future Roadmap outlines a phased approach to improving KLM's Unaccompanied Minor service. This strategic plan builds on insights from the Discover, Define, and Develop phases of the project. It prioritizes solutions that address immediate needs, align with operational constraints, and enable scalable growth for the future. By focusing on actionable steps and clear milestones, the roadmap ensures measurable progress in enhancing the UM journey for both children and caregivers.

1

Short-Term Goals (0–6 Months): Research and Testing

The short-term phase focuses on addressing foundational issues through research, testing, and quick wins.

- Upgrade redesign and test UM necklace wallet:
 - The functional redesign of the UM Necklace Wallet will improve its usability and alignment with KLM's branding. Usability tests with children, caregivers, and staff will ensure the final design meets user needs.
 - Milestone: Feedback collected and incorporated into the final design.
- Launch enhanced website:
 - Launch a dedicated UM section on the KLM website, offering caregivers preparation guides and answers to frequently asked questions (FAQs).
 - Milestone: Updated website launched and fewer UM-related questions received at the socials.
- AFS UM desk redesign:
 - Implement improvements to the AFS desk layout and signage at Schiphol to enhance navigation and user experience.
 - Milestone: Desk redesign tested, evaluated, and implemented.
- Staff training program rollout:
 - Train AFS and KLM staff extra on UM-specific protocols and empathetic customer interaction to improve service delivery.
 - Milestone: First training sessions completed with positive evaluations.

2

Medium-Term Goals (6–18 Months): Implementation and Expansion

The medium-term phase focuses on implementing tested solutions and expanding operational improvements.

- Implement Redesigned UM Necklace Wallet:
 - Following testing, roll out the finalized wallet design across all relevant locations, supported by staff training and caregiver education.
 - Milestone: Redesigned wallet fully implemented.
- Junior Jet Lounge Upgrades:
 - Enhance the lounge experience with child-friendly furniture, interactive displays, and designated play and quiet zones.
 - Milestone: New lounge concept operational at Schiphol.
- Feedback Collection System:
 - Introduce a system to gather real-time feedback from caregivers and children during and after their journey.
 - Milestone: Feedback system operational and data collection initiated.

Long-Term Goals (18–36 Months): Strategic Growth

The long-term phase ensures sustainable and scalable improvements, leveraging insights from the medium-term phase.

- Utilize Feedback for Continuous Improvement:
 - Analyze feedback data to identify recurring pain points and opportunities. Implement iterative improvements to address these areas.
 - Milestone: First improvements based on feedback implemented.
- Unified Check-In Desk:
 - Combine AFS and KLM desks to streamline check-in processes, improve efficiency, and enhance caregiver and child experiences.
 - Milestone: Integrated check-in desk piloted and rolled out.
- All-Digital UM Journey:
 - Transition from paper UM forms to a fully digital boarding pass system integrated with KLM's infrastructure and an interactive caregiver portal and app to digitize the UM experience, from booking to look back.
 - Milestone: First phase of digital implementation tested and refined.
- Global Standardization of UM Processes:
 - Collaborate with international partners to align UM service standards, ensuring consistency across all hubs.
 - Milestone: Standardized processes implemented worldwide.
- Junior Jet Lounge Expansion:
 - Roll out upgraded lounge concepts and connect with international hubs, ensuring consistency and user satisfaction.
 - Milestone: Enhanced lounges suitable for the number of children on the busiest days of the year.

The Future Roadmap provides a clear, actionable plan for elevating the KLM UM service. By focusing on short-term improvements, medium-term implementation, and long-term scalability, KLM can address the immediate needs of children and caregivers while laying the groundwork for a seamless, digitally integrated future. This approach aligns with KLM's strategic priorities and strengthens its position as a trusted and innovative airline.

Delivers on the following requirements:



5.2 Research Recommendations for the Future of KLM's UM Service

During my internship, I identified several opportunities to enhance KLM's Unaccompanied Minor service. Unfortunately, the scope of my project did not allow me to explore all potential areas for research and development. To ensure continuous improvement and alignment with KLM's strategic goals, I propose a roadmap of research initiatives that address key operational, financial, and customer experience challenges.

The proposed roadmap prioritizes research based on urgency, feasibility, and long-term impact. Short-term studies focus on foundational insights that can drive immediate improvements. Medium-term research addresses operational refinements and customer-centric enhancements, while long-term initiatives explore strategic growth opportunities such as digital transformation, sustainability, and revenue generation.

1

Short-Term Goals (0-6 Months): Foundational Research

These studies aim to address immediate needs and build a foundation for future improvements:

1. Financial Feasibility Study

- Objective: Analyze the cost structure and revenue potential of the UM service.
- Why Now: Understanding financial viability is essential for prioritizing future investments and cost-saving measures.

2. Process Mapping and Optimization

- Objective: Dive deeper into the identified inefficiencies in the current UM journey and propose improvements.
- Why Now: The clear process map I made addresses operational bottlenecks more specific research can ensure improvement and consistency.

3. Feedback Utilization Study

- Objective: Leverage feedback from caregivers and UMs to guide iterative improvements.
- Why Now: Utilizing existing data can provide quick wins and build trust with customers.

4. Caregiver Communication Preferences

- Objective: Determine the most effective channels for pre-travel and in-journey communication to explore expansion next to the website redesign.
- Why Now: Improved communication can immediately enhance caregiver satisfaction.

2

Medium-Term Goals (6-18 Months): Operational and Customer-Centric Research

This phase focuses on refining operations and enhancing the customer experience:

• Emotional Well-Being Study

- Objective: Deeper understand stress triggers for UMs and Caregivers and propose interventions.
- Why Now: Addressing the emotional needs mentioned strengthens trust and satisfaction among children and caregivers.

• Transfer Efficiency Study

- Objective: Streamline the transfer process to reduce delays and improve clarity.
- Why Now: Transfers are a critical touchpoint where operational efficiency can significantly improve experiences.

- **Service Ages Scenarios**

- Objective: Explore different scenarios to change mandatory ages or make the optional UM service more appealing for teenagers.
- Why Now: Increasing uptake in the different age groups can drive additional revenue and loyalty.

- **International Process Evaluation**

- Objective: Evaluate UM operations at foreign airports to ensure consistency and identify global best practices.
- Why Now: Standardization enhances the overall service quality and simplifies collaborations with international partners.

Long-Term Goals (18–36 Months): Strategic and Global Research

This phase focuses on future-proofing the UM service through innovation and strategic alignment:

1. Specialized UM Flow Development

- Objective: Create a dedicated UM journey tailored to specific age groups.
- Why Later: Requires insights from short- and medium-term studies to ensure feasibility and alignment.

2. Positioning and Promotion Study

- Objective: Establish scenarios of the UM service as a premium offering aligned with KLM's brand values.
- Why Later: Builds on operational improvements and financial data to enhance marketing strategies.

3. Sustainability Assessment

- Objective: Evaluate the environmental impact of the UM service and propose sustainable alternatives.
- Why Later: Long-term investments in sustainability require a stable operational foundation.

4. All-Digital User Experience Study

- Objective: Explore the feasibility of a fully digital UM journey.
- Why Later: Digitalization aligns with long-term customer expectations and operational scalability.

5. Revenue Optimization Study

- Objective: Identify opportunities to enhance profitability through pricing and premium offerings.
- Why Later: Requires data from earlier financial and customer experience studies to ensure accurate recommendations.

While time constraints during my internship limited the scope of these studies, this roadmap ensures that KLM can continue to evolve its UM service in alignment with its strategic priorities. The phased approach enables actionable insights in the short term, operational refinements in the medium term, and strategic innovations in the long term. By following this roadmap, KLM can secure its position as a leader in providing exceptional and reliable services for Unaccompanied Minors.

5.3 Validation & Testing

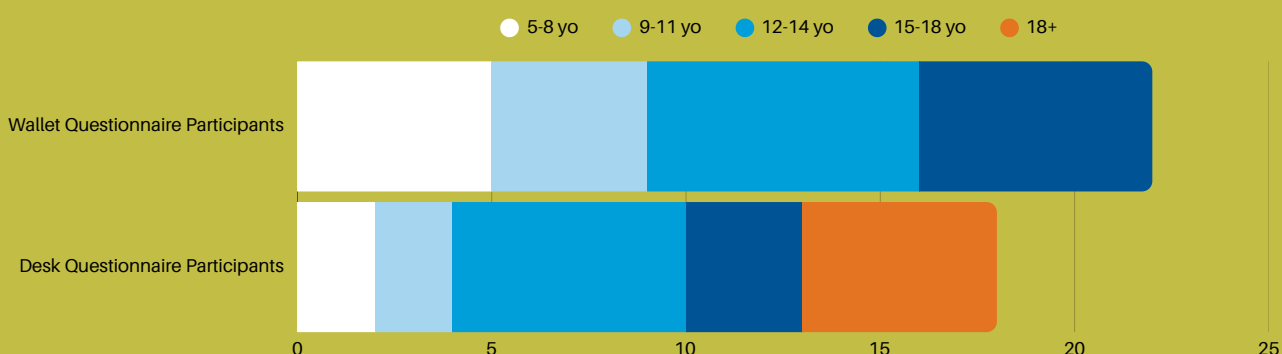
To gather valuable feedback on the redesigns of KLM's UM Wallet and AFS UM Desk, two structured surveys were conducted at Schiphol. The aim was to assess the effectiveness of the proposed designs in aligning with the target audience's needs, KLM's branding, and its desired position within the NeedScope model.

The research included both caregivers and Unaccompanied Minors, enabling a dual perspective on the design changes. Participants reviewed the current designs (in real life) alongside the redesigns (online) and completed questionnaires detailing their opinions and preferences. The insights gained provide actionable recommendations for further refinement and implementation.

Methodology

- Location: Schiphol Airport
- Participants:
 - Caregivers (age 18+)
 - Unaccompanied Minors (age 5–18)
 - Distribution as shown in Figure 51.

Figure 51
Demographics: Age Distribution. Image created by the author (2025).



- Process:
 - Participants reviewed the existing and redesigned products in person.
 - They completed the questionnaires independently or with assistance (for younger UMs).
 - Full questionnaires are included in Appendix (I).

Limitations

1. Sample Size: The number of participants was relatively small, which may limit the generalizability of the results.
2. Bias: Younger children may have been influenced by caregivers or researcher while answering.
3. Time Constraints: Feedback was collected in a limited timeframe, reducing the opportunity for follow-up questions.

Recommendations for Future Research

1. Expand the sample size to include more diverse demographics and cultural backgrounds.
2. Conduct follow-up studies in additional locations to compare international perspectives.
3. Use interactive prototypes for more dynamic feedback on usability.

5.4 Results of the UM Wallet Redesign

Key Findings

- Overall Appeal:
 - 81,1% of participants preferred the redesigned UM Wallet. (Figure 52)
 - Feedback highlighted improved aesthetics and functionality, aligning well with KLM's brand values of reliability and care.
- Attributes Valued:
 - Improved features: The most improved features are shown in Figure 53 the material quality and the overall look and feel are most mentioned.
 - Alignment with NeedScope: Participants described the design as "friendly" and "positive", fitting well with the orange/brown dimension. All mentioned descriptions are shown in Figure 54.
- Brand Impact:
 - 14 participants had a more positive impression of KLM after seeing the redesign.

Areas for Improvement

- Inclusivity for Age Groups: Younger UMs found the design slightly "boring" (2 responses), suggesting the need for playful or customizable elements.
- Feedback on features: Children highlighted the overall look and feel as the key improvement in the redesign, though 2 participants indicated they found "nothing" better than the old design.

Recommendations

- Test different color options or patterns to make the design more appealing for younger users.
- Introduce additional features, such as easy-to-open compartments or customizable items, to further enhance and modernize the product compared to its current version.

Requirements tested:



Figure 52
Product Preferences. Image created by the author (2025).

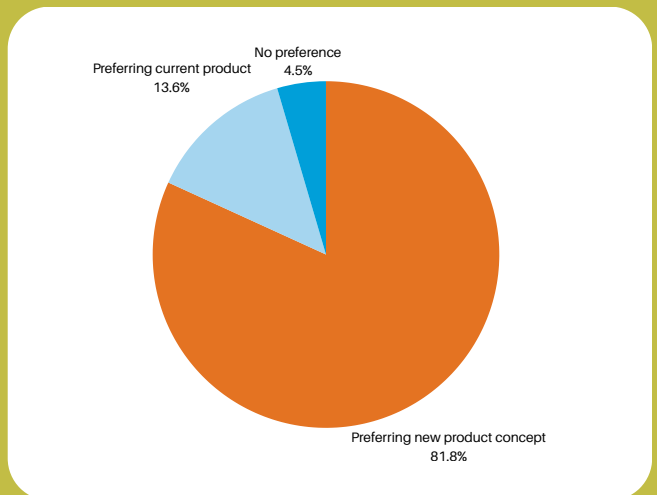


Figure 53
Improved Features UM Wallet Compared to Current Product. Image created by the author (2025).

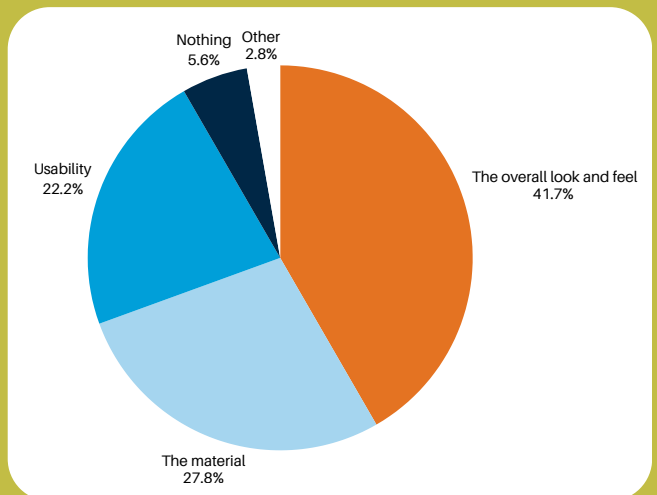
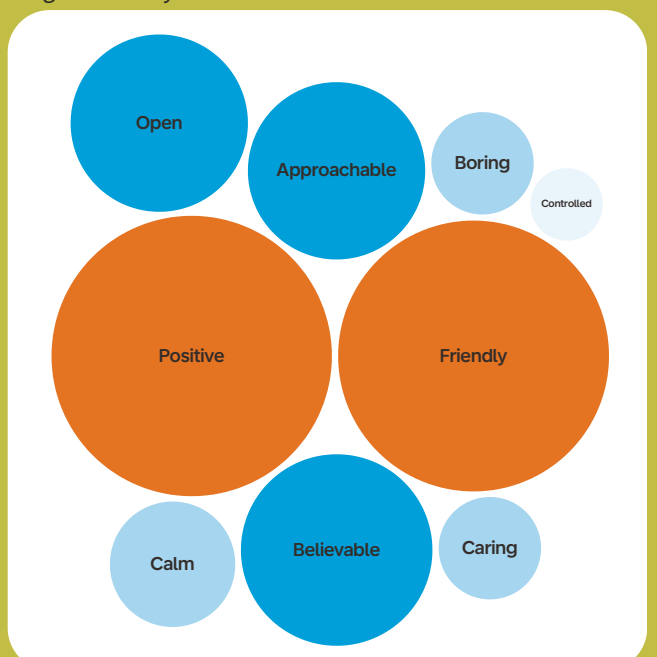


Figure 54
Product Descriptions Scaled by Frequency. Image created by the author (2025).



5.5 Results of the AFS UM Desk Redesign

Key Findings

1. Visibility and Information:

- The visibility and information clarity in the redesign are mentioned as the most improved features.
- Alignment with NeedScope: Mostly described as “approachable” (12 responses) and “friendly” (14 responses), reinforcing KLM’s focus location in the Needscope model.

2. Improved Communication:

- 16 participants felt more informed compared to the current design, indicating successful communication improvements. Figure 55 shows how the level of improvement they perceive.

3. Brand Impact:

- 13 participants reported a slightly improved perception of KLM’s brand after seeing the redesign.

Figure 55
Perceived Improvement in Information Clarity Compared to the Current Design.
Image created by the author (2025).

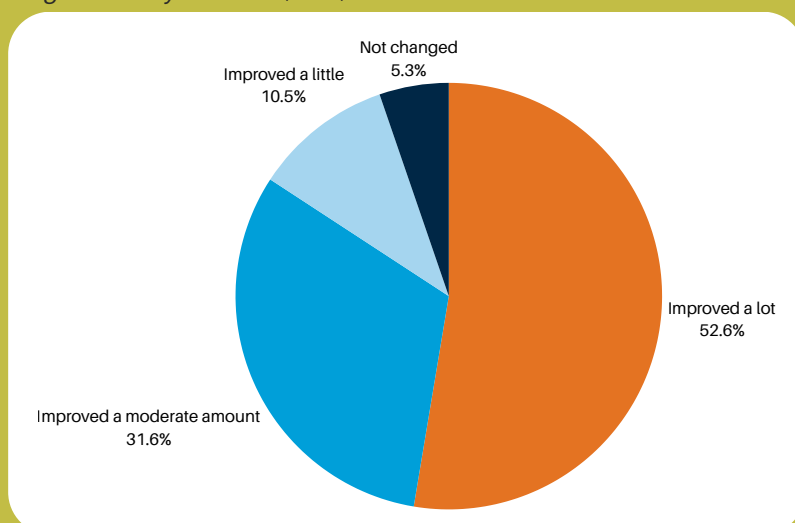
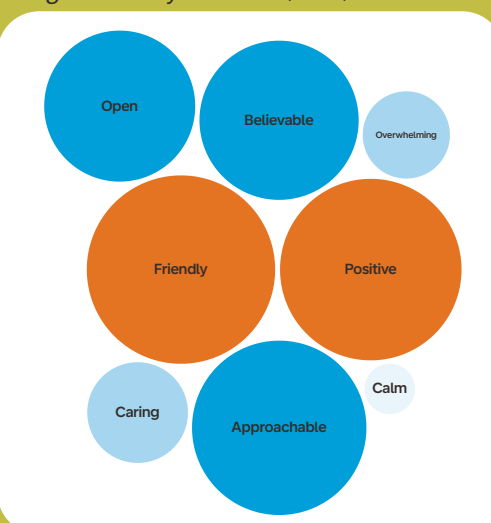


Figure 56
Product Descriptions Scaled by Frequency.
Image created by the author (2025).



Areas for Improvement

1. Emotional Impact: A younger participant (age 5–8) and two caregivers described the redesign as “overwhelming”, suggesting it may lack a calming effect.
2. Clarity for Children: Add visual cues or playful elements for easier navigation by younger UMs.

Recommendations

1. Incorporate calming design features, such as softer colors or less visual clutter.
2. Test the desk’s functionality with a larger sample to refine layout and signage further.

Requirements tested:



5.6 Financial Considerations and Strategic Value of the UM Service

Limitations of Financial Analysis

This report does not extensively address the financial aspects of KLM's Unaccompanied Minor service. This limitation stems from the unavailability of detailed financial data within the scope of this project. While a deeper exploration of profitability and cost efficiency could provide valuable insights, the focus of this report has been on understanding and improving the service's broader impact on KLM's brand and customer experience.

Focus Beyond Direct Profitability

Despite the absence of financial analysis, this report highlights the strategic value the UM service brings to KLM beyond immediate revenue generation. Over the years, there has been a continuous increase in demand for the service, suggesting its importance to a growing customer base. This aligns with KLM's long-term vision of differentiating itself through exceptional service quality.

The UM service is evaluated here as more than a standalone profit center. Instead, it is positioned as a key contributor to KLM's brand positioning and competitive edge, particularly through its alignment with the airline's three key differentiators:

- **Peace of Mind:** Providing caregivers and children with a reliable, safe, and comfortable experience.
- **Meaningful Interactions:** Creating empathetic, human-centered moments during the travel journey.
- **Convenient Transfers:** Offering a stress-free and seamless travel experience for children traveling alone.

By excelling in these areas, KLM can distinguish itself from competitors and reinforce its reputation as a family-friendly airline.

Strategic Benefits of the UM Service

The UM service holds unique value as a specialized offering that attracts a specific customer segment. Many airlines either do not provide such a service or fail to deliver it with the same level of care and professionalism. This exclusivity makes it a valuable product in KLM's portfolio, serving as a differentiator in a competitive market.

Furthermore, the UM service strengthens brand loyalty by retaining existing customers who require this service. Caregivers who rely on the UM service for their children are less likely to switch to another airline if they are satisfied with KLM's offering. Moreover, the service fosters long-term customer relationships: children who experience positive interactions with KLM at a young age are more likely to remain loyal customers as they grow older. By delivering a memorable and caring experience, KLM invests in its future customer base.

Conclusion

While the financial implications of the UM service have not been explored in this report, the findings highlight its strategic importance to KLM. Beyond profitability, the service contributes to KLM's competitive differentiation, brand positioning, and long-term customer loyalty. It attracts new customer segments, retains existing ones, and fosters positive associations with the KLM brand from an early age. These strategic benefits ensure that the UM service remains a valuable asset in KLM's portfolio, supporting its broader business objectives.

Chapter 6

C O N C L U S I O N

This chapter summarizes the key findings, reflects on project limitations, and offers final recommendations for KLM's Unaccompanied Minor service. It highlights the service's strategic value in strengthening KLM's brand, addressing immediate needs, and building long-term loyalty among future travelers.



C O N C L U S I O N

6.1 Summary of Key Findings

This project provided comprehensive insights into KLM's Unaccompanied Minor service, identifying key areas for improvement and proposing actionable solutions. The findings highlighted:

- **Communication Gaps:** Both children and caregivers expressed confusion due to unclear instructions and inconsistent information across touchpoints. Clearer communication is essential for enhancing peace of mind.
- **Operational Inefficiencies:** Issues such as disorganized UM wallet storage and lengthy check-in processes indicated a need for streamlined workflows and better coordination between KLM and AFS.
- **Emotional Touchpoints:** Addressing anxiety and uncertainty during critical moments, such as check-in or waiting periods, proved vital for creating a positive experience.
- **Strategic Value:** The UM service plays a unique role in strengthening KLM's brand by promoting loyalty, enhancing the customer experience, and distinguishing KLM from competitors.

Through the development of solutions like rebranding, process redesigns, and a future roadmap, the project provides a solid foundation for immediate and long-term improvements.

6.2 Reflection on Limitations and Challenges

While the project achieved substantial progress, several limitations impacted its scope:

- **Financial Analysis:** The lack of access to detailed financial data prevented a full evaluation of the UM service's profitability and cost implications.
- **Time Constraints:** Limited time restricted the depth of user testing and the ability to explore all proposed solutions comprehensively.
- **Stakeholder Access:** Challenges in accessing certain operational processes, particularly at outbound airports, left gaps in understanding international workflows.
- **Current State of KLM:** The ongoing challenges within KLM, such as resource constraints and shifting priorities due to the "Back on Track" recovery program, impacted the feasibility of more ambitious solutions. These limitations necessitated a focus on low-hanging fruit and practical, immediate improvements rather than large-scale digital transformations or costly implementations.
- **Limited Priority for Digital Initiatives:** The digital department at KLM is currently focused on other high-priority projects, leaving limited resources and attention for developing or integrating new digital tools for the UM service. This required the project to explore solutions that minimized reliance on digital innovation, focusing instead on physical and operational improvements.

Despite these challenges, the focus on actionable, resource-friendly solutions ensured the delivery of practical recommendations that align with KLM's current operational capacity and strategic goals. These limitations also underscore the need for further exploration and long-term planning to fully realize the potential of the UM service.

6.3 Personal Reflection

This project has been an enriching journey, blending design thinking, strategy, and empathy. Working within KLM's complex operational structure challenged me to prioritize practical solutions while addressing user needs. The process deepened my understanding of customer-centric design and the importance of balancing innovation with feasibility.

The project also reinforced the significance of collaboration. Engaging with stakeholders, caregivers, and children provided invaluable perspectives that shaped the solutions. I am proud to have contributed to a service that has the potential to create lasting positive impressions for KLM's youngest travelers and their families.

6.4 Final Thoughts and Call to Action

KLM's Unaccompanied Minor service is more than just an operational offering—it is a strategic asset that embodies the airline's values of care, reliability, and innovation. Implementing the proposed solutions will not only address existing challenges but also position the UM service as a key differentiator in the aviation industry.

This service is not about simply transporting passengers; it is about caring for what is often a family's most valuable treasure—their children. Few experiences are as magical for a young child as the opportunity to fly, and KLM has the unique ability to turn this journey into a positive and unforgettable memory. By investing in the UM service, KLM ensures that both caregivers and children feel supported, safe, and cared for at every step of the way.

The findings of this project demonstrate the potential of the UM service to enhance customer loyalty, attract new market segments, and reinforce KLM's reputation as a family-friendly airline. However, realizing this potential requires a commitment to continuously improving and prioritizing the service.

Now is the time to act. By embracing these recommendations, KLM can exceed expectations, strengthen its competitive edge, and build lasting relationships with the customers of today and tomorrow. This is an opportunity to not only differentiate the airline but also inspire the next generation of travelers, ensuring they associate flying with trust, care, and the magic of KLM.

References

- ABN AMBRO.** (2023, January 11). *Vliegticket duurder door milieumaatregelen*. Retrieved from <https://www.abnamro.nl/nl/zakelijk/insights/sectoren-en-trends/leisure/vliegticket-duurder-door-milieumaatregelen.html>
- Air France.** (n.d.). *Kids Solo: Unaccompanied minor service*. Retrieved from <https://www.airfrance.fr>
- Alleenreizende kinderen | Transavia.** (2024). Retrieved from <https://www.transavia.com/service/nl-nl/kinderen-huisdieren-groepen/alleenreizende-kinderen>
- Amankwah-Amoah, J.** (2020). *Stepping up and stepping out of COVID-19: New challenges for environmental sustainability policies in the global airline industry*. *Journal of Cleaner Production*, 271, 123000. <https://doi.org/10.1016/j.jclepro.2020.123000>
- Anastasiia.** (2018, June 26). *Global Mobility Workforce Trends - EMG*. Retrieved from <https://www.executivemobility-group.com/en/global-mobility-workforce-trends/#:~:text=According%20to%20Strategy%20Analytics%2C%20the,out%20to%20find%20international%20positions>
- Árnadóttir, Á., Czepkiewicz, M., & Heinonen, J.** (2021). *Climate change concern and the desire to travel: How do I justify my flights?* *Travel Behaviour and Society*, 24, 282–290. <https://doi.org/10.1016/j.tbs.2021.05.002>
- Bhati, A. S., Hoong, C. T., Fong, J. C. L., & Kaur, K.** (2014). *Personalised Travel Services: An Exploratory Study in Singapore Context*. *GSTF Journal on Business Review*, 3(1). <https://doi.org/10.7603/s40706-013-0005-3>
- Bilan, Y.** (2013). *Sustainable development of a company: Building a new level relationship with the consumers of XXI century*. Retrieved from <https://www.econstor.eu/handle/10419/168808>
- Boeing.** (2021, September). *Services Market Outlook*. Retrieved from <https://www.boeing.com/commercial/market/services-market-outlook#resources>
- CBS.** (2020, December 18). *Welk percentage van Nederlanders koopt online? En wat - Nederland in cijfers 2020*. Retrieved from <https://longreads.cbs.nl/nederland-in-cijfers-2020/welk-percentage-van-nederlanders-koopt-online-en-wat>
- CBS.** (2020a, December 18). *Hoe ging het met onze koopkracht? - Nederland in cijfers 2020*. Retrieved from <https://longreads.cbs.nl/nederland-in-cijfers-2020/hoe-ging-het-met-onze-koopkracht>
- CBS.** (2020b, December 18). *Hoeveel mensen werken (nooit) thuis? - Nederland in cijfers 2020*. Retrieved from <https://longreads.cbs.nl/nederland-in-cijfers-2020/hoeveel-mensen-werken-nooit-thuis>
- CBS.** (2020c, December 18). *Wat voeren jongeren online uit? - Nederland in cijfers 2020*. Retrieved from <https://longreads.cbs.nl/nederland-in-cijfers-2020/wat-voeren-jongeren-online-uit>
- CBS.** (2020e, December 18). *Wie gebruikt het vaakst sociale media? - Nederland in cijfers 2020*. Retrieved from <https://longreads.cbs.nl/nederland-in-cijfers-2020/wie-gebruikt-het-vaakst-sociale-media>
- CBS.** (2024, September). *Hoeveel mensen hebben vliegschaamte? - Nederland in cijfers 2024*. Retrieved from <https://longreads.cbs.nl/nederland-in-cijfers-2024/hoeveel-mensen-hebben-vliegschaamte>
- CBS.** (2024a, June). *Statline: Immi- en emigratie; leeftijd (31 dec.), burgerlijke staat, geboorteland*. Retrieved from <https://opendata.cbs.nl/statline/#/CBS/nl/dataset/85469NED/table?ts=1717501401183>
- CBS Statline.** (z.d.). Retrieved from <https://opendata.cbs.nl/statline/#/CBS/nl/dataset/85469NED/table?ts=1717501401183>

Centraal Bureau voor de Statistiek. (2022, May 8). *Hoe oud zijn mensen in Nederland?* Retrieved from <https://www.cbs.nl/nl-nl/visualisaties/dashboard-bevolking-junior/leeftijd-burgers>

Centraal Bureau voor de Statistiek. (2024, March 7). *In steeds minder gezinnen werkt alleen de vader.* Retrieved from <https://www.cbs.nl/nl-nl/nieuws/2024/10/in-steeds-minder-gezinnen-werkt-alleen-de-vader>

Cisneros-Donahue, T., Krentler, K. A., Reinig, B., & Sabol, K. (n.d.). *Assessing the Academic Benefit of Study Abroad.* Retrieved from <https://eric.ed.gov/?id=EJ1081359>

ChatGPT-4. (2025). All illustrations and visualisations are created by me, the author, unless indicated otherwise. ChatGPT-4 was employed to assist in rewriting my text to enhance fluency and to check for grammar and sentence structure throughout this thesis.

Delta Air Lines. (n.d.). *Unaccompanied minor program.* Retrieved from <https://www.delta.com>

Design Council. (2005). *The 'Double Diamond' design process model.* Retrieved from <https://www.designcouncil.org.uk>

EASA. (2022). *Aviation safety standards.* Retrieved from <https://www.easa.europa.eu/en>

European Union. (2018). *General Data Protection Regulation (GDPR). Official Journal of the European Union.* Retrieved from <https://eur-lex.europa.eu/homepage.html>

Eurostat. (2022). *The European economy since the start of the millennium - Household income recovering.* Retrieved from https://ec.europa.eu/eurostat/cache/digpub/european_economy/bloc-2a.html?lang=en

FlixBus. (n.d.). *Children travelling alone.* Retrieved from <https://www.flixbus.com>

Grupe, D. W., & Nitschke, J. B. (2013). *Uncertainty and anticipation in anxiety: An integrated neurobiological and psychological perspective.* *Nature Reviews Neuroscience*, 14(7), 488–501. <https://doi.org/10.1038/nrn3524>

Grudin, J., & Pruitt, J. (2002). *Personas, Participatory Design and Product Development: An Infrastructure for Engagement.* Retrieved from <https://www.semanticscholar.org/paper/Personas%2C-Participatory-Design-and-Product-An-for-Grudin-Pruitt/7ea9505694f1d444a330b1947109c7268a9704d2>

Hoag, C. (2022, March 19). *Expat Children: Increasing in Numbers - The Expat Chronicles - Medium.* Retrieved from <https://medium.com/the-expat-chronicles/expat-children-increasing-in-numbers-e69a749d0a4c>

IATA. (2021). *Guidance on Unaccompanied Minors.* Retrieved from <https://www.iata.org/>

ICAO. (2022). *Environmental report.* Retrieved from <https://www.icao.int/Pages/default.aspx>

Kantar. (n.d.). *Needscope: Unlocking the power of emotion to drive brand growth.* Retrieved November 20, 2024, from <https://www.kantar.com>

KLM. (2024). *Children traveling alone.* Retrieved from <https://www.klm.nl/en/information/assistance-health/children-travelling-alone>

KLM. (2024). *When you travel, Travel Well.* Retrieved from https://travelwell.klm.com/us_en

López, F. S. (2021). *The influence of registered divorces on outbound tourism: Empirical evidence from Mexico.* *Current Issues in Tourism*, 25(18), 2939–2954. <https://doi.org/10.1080/13683500.2021.2012434>

McKinsey. (2024, July 16). *Technology trends outlook. McKinsey & Company.* Retrieved from <https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/the-top-trends-in-tech#tech-trends-2024>

Mojca, F. S., Fontaine, J., Jan, D. M., & Verhofstadt, L. (2018). *Expatriate family adjustment: An overview of empirical evidence on challenges and resources*. Retrieved from <https://biblio.ugent.be/publication/8578644>

NS International. (n.d.). *Travelling with children*. Retrieved from <https://www.nsinternational.com>

OECD. (2021). *Labor laws and aviation services*. Retrieved from <https://www.oecd.org/>

Rookayyah, I., et al. (2024). *The impact of exchange rate and exchange rate volatility on tourism demand using disaggregated data*. *International Journal of Tourism Research*, 26(2). <https://doi.org/10.1002/jtr.2640>

Shaw, B., et al. (2015). *Children's Independent Mobility: An international comparison and recommendations for action*. Policy Studies Institute. Retrieved from https://www.nuffieldfoundation.org/sites/default/files/files/7350_PSI_Report_CIM_final.pdf

Smith, B., Air France-KLM, Zaat, S., & Air France-KLM. (2023). *Full Year Results 2023*. Retrieved from https://www.airfranceklm.com/sites/default/files/2024-03/afklm_q4_2023_results_-_final.pdf

TUI. (n.d.). *Unaccompanied minors service*. Retrieved from <https://www.tui.nl>

UNICEF. (2022). *Children's rights and international travel*. Retrieved from <https://www.unicef.org/>

Usmani, U. A., & Usmani, M. U. (2014). *Future Market Trends and Opportunities for Wearable Sensor Technology*. *International Journal of Engineering and Technology*, 326–330. <https://doi.org/10.7763/ijet.2014.v6.721>

van Boeijen, A., Daalhuizen, J., van der Schoor, R., & Zijlstra, J. (2014). *Delft Design Guide: Design strategies and methods*.

Vliegticket duurder door milieumaatregelen. (2023, January 11). *ABN AMRO*. Retrieved from <https://www.abnamro.nl/nl/zakelijk/insights/sectoren-en-trends/leisure/vliegticket-duurder-door-milieumaatregelen.html>

Whelan, T., Kronthal-Sacco, R., & NYU Stern's Center for Sustainable Business. (2019). *Marketing research: Actually, consumers do buy sustainable products*. Retrieved from https://www.stern.nyu.edu/sites/default/files/assets/documents/HBR_Consumers%20Do%20Buy%20Sustainable%20Products_June%202019.pdf

Wood, J., Hamilton, J., & A Place in Childhood. (2022). *Enabling Independent Travel for Young Scots: Age-appropriate active travel infrastructure for 11-16-year-olds*. Retrieved from https://aplaceinchildhood.org/wp-content/uploads/2022/10/Enabling-Independent-Travel-for-Young-Scots_Final.pdf

Zuidgeest, R., & van der Helm, A. (2023). *Developing a customer-first strategy in aviation: A case study on KLM*. Retrieved from <https://www.klm.com>

