# Communicating Credibility in Circular IT: A Qualitative Study of Trust and Sustainability Messaging by European Sellers

Aalborg University - MSc in Marketing and Sales

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**Abstract**

Electronic waste keeps growing across Europe, pushing the need for smarter ways to extend the life of IT equipment. Reuse and refurbishment are key tools in this shift toward a circular economy. Still, adoption of used and refurbished IT products remains low, and a big part of the problem lies in how sellers build trust and communicate sustainability to different types of buyers.

This thesis investigates how actors such as ITADs, brokers, traders, Service companies and marketplaces communicate credibility in B2B and B2C settings. The research combines insights from Trust Theory, Signaling Theory, Green Marketing, and the Theory of Planned Behavior. It is based on qualitative interviews with professionals working in the used and refurbished IT sector across six European countries.

The results show that elements like grading, warranties, and clear documentation help reduce uncertainty, although their impact depends on who the buyer is. While sustainability messaging is more common in B2C, B2B sales often prioritize pricing and logistics. The lack of standardized grading emerged as a structural barrier, alongside regional and cultural differences in trust expectations.

By focusing on the supply side of the market, this research provides practical insights into how used and refurbished IT sellers manage communication in real-world conditions. The study aims to support both academic understanding and industry efforts to accelerate the shift toward a more circular IT economy in Europe.

## Table of contents

## Chapter 1: Introduction

This chapter introduces the background, purpose, and scope of the study. It begins by contextualizing the environmental and economic challenges posed by electronic waste in the IT sector and outlines how the circular economy offers an alternative framework focused on reuse and resource efficiency. The chapter then presents the research problem, objectives, and guiding questions, before clarifying key definitions and outlining the thesis structure.

### 1.1 Circular Economy & E-Waste in the IT Sector

The rapid pace of technological advancement in the information technology (IT) sector has led to a significant increase in electronic waste (e-waste), raising urgent questions about environmental sustainability and resource efficiency. Globally, over 50 million tonnes of e-waste are generated annually, with less than 20% formally recycled. As digital devices become increasingly embedded in both personal and professional life, their short replacement cycles, driven by obsolescence, performance upgrades, and aesthetic shifts, contribute to escalating material waste and carbon emissions (Forti et al., 2020).

In response to these challenges, the circular economy has emerged as a strategic framework for rethinking production and consumption in the IT sector. Unlike the linear “take-make-dispose” model, the circular economy emphasizes resource efficiency through reuse, refurbishment, remanufacturing, and recycling (Ellen MacArthur Foundation, 2013). Within this paradigm, used and refurbished IT equipment plays a critical role by extending product lifespans and minimizing the demand for virgin raw materials such as rare earth metals and cobalt, many of which are extracted under environmentally and ethically questionable conditions (Parajuly et al., 2019).

The European Union has positioned circularity as a key component of its Green Deal, aiming to achieve climate neutrality and resource decoupling by 2050. IT equipment has been identified as a priority category in policy frameworks such as the Circular Electronics Initiative and the proposed Digital Product Passport (European Commission, 2020). These policy shifts are encouraging manufacturers, resellers, and refurbishers to adopt more transparent, accountable, and Despite

these ambitions, the market for refurbished IT equipment remains underutilized, particularly among small businesses and individual consumers. In contrast, large enterprises and public institutions have increasingly incorporated used and refurbished devices into their procurement strategies, primarily motivated by cost savings, regulatory compliance, or environmental, social, and governance (ESG) objectives. This limited adoption among broader consumer segments persists even though there is growing evidence that refurbished products not only deliver environmental benefits but also offer cost savings of 20 to 50 percent compared to new devices (Esmaeilian et al., 2021).

The key barrier to wider adoption of refurbished IT equipment is not merely technical quality but trust, particularly concerning data security, warranty coverage, grading systems, and product transparency. Sellers must also navigate the tension between promoting sustainability and managing the practical demands of pricing, logistics, and buyer expectations across different segments. These communication challenges are especially pronounced when comparing B2B and B2C contexts, where trust-building mechanisms and sustainability messaging vary significantly. Moreover, actor type (e.g., ITADs, brokers, marketplaces) and regional context further influence how these dynamics unfold, as cultural, economic, and regulatory factors shape both supply and demand behaviors across European markets. In this light, refurbished IT equipment is not only a sustainability lever but also a communication challenge. Understanding how trust and ecological value are signaled and interpreted in practice is essential for scaling the circular economy in the IT sector (James et al., 2024).

### 1.2 Problem Statement

Despite growing environmental awareness and strong policy support for circular economy principles, the market for used and refurbished IT equipment remains significantly underdeveloped in many parts of Europe. While these products offer clear ecological and economic advantages, such as reduced e-waste, lower carbon emissions, and affordability, many consumers and businesses continue to prefer new devices, largely due to concerns around quality, reliability, and data security. These concerns reflect deeper issues of trust and perception, which remain critical barriers to broader market adoption (Esmaeilian et al., 2021).

Existing literature has extensively examined consumer attitudes toward used and refurbished products, highlighting factors such as perceived risk, warranty coverage, and social norms as key determinants of adoption (Camilleri et al., 2023). However, the supply-side perspective, specifically how firms in the resale and refurbishment of IT products market build trust, communicate sustainability, and adapt to varying market conditions, has been comparatively underexplored. This gap is particularly critical in a market where intermediaries such as ITADs (IT Asset Disposition firms), brokers, traders, and digital marketplaces play a central role in shaping buyer perceptions and facilitating transactions.

This thesis addresses this gap by focusing on the strategic communication practices of sellers across the used and refurbished IT supply chain in Europe. Through a qualitative analysis of interviews with ITADs, brokers, intermediaries, and marketplaces, the study investigates how trust and sustainability are operationalized in seller messaging, and how these are tailored across B2B vs. B2C channels and regional markets.

### 1.3 Research Objectives & Research Questions

This thesis investigates how actors in the used and refurbished IT supply chain communicate trust and sustainability across different buyer segments and sales environments. While previous research has emphasized consumer attitudes and purchasing behavior (Nguyen et al., 2019), this study takes a supply-side perspective, focusing on how companies, such as ITADs, brokers, intermediaries, and marketplaces, adapt their messaging strategies to build credibility, differentiate their offerings, and overcome market-specific barriers.

The main objective is to understand how communication around trust and sustainability is shaped by organizational roles, operational constraints, and channel-specific expectations. In doing so, the study seeks to uncover both common patterns and strategic differences across B2B and B2C contexts in the European used and refurbished IT market.

#### Research Objectives

1. To analyze how used and refurbished IT sellers use signals such as price, warranty, grading, and documentation to build trust with buyers.

2. To evaluate how sustainability-related messaging is integrated into sales communication, and how its relevance differs by audience type.

3. To explore how used and refurbished IT sellers tailor their communication strategies for B2B versus B2C channels.

4. To understand how operational and contextual constraints influence the way sellers communicate trust and sustainability in practice.

The research is guided by the following overarching question:

**Main Research Question**

How do used and refurbished IT sellers communicate trust and sustainability across B2B and B2C channels in the European market?

To address this question, the study is guided by four sub-questions:

1. **What trust-building mechanisms, such as grading, warranty, and transparency, are used by sellers, and how are these communicated?**
   This sub-question supports Objective 1 by examining how sellers reduce perceived risk through specific signals, particularly in settings characterized by information asymmetry.

2. **How do communication strategies differ between B2B and B2C channels, particularly regarding the framing of trust and sustainability?**
   This sub-question addresses Objective 2 by exploring how sellers tailor their messaging to meet the distinct expectations of business clients versus end consumers.

3. **How is sustainability framed in communication strategies, and what role does it play in B2B versus B2C transactions?**
   This question contributes to Objective 3 by analyzing how sellers position

environmental messaging depending on the buyer segment and whether sustainability is emphasized or deprioritized.

4. **How do internal constraints and platform dynamics influence the way sellers communicate trust and sustainability?**
   This sub-question supports Objective 4 by investigating the structural and operational factors, such as staffing limitations, platform rules, and resource constraints, that shape communication practices in real-world conditions.

### 1.4 Refurbished vs. Used IT Equipment

The distinction between *used* and *refurbished* IT equipment is critical for understanding the scope of this thesis. While both categories fall under the broader umbrella of second-hand electronics, they differ significantly in terms of quality assurance, buyer expectations, and trust signals. Clarifying this distinction is essential for delineating the focus of the study and avoiding the conflation of fundamentally different market segments.

Used IT equipment generally refers to devices sold in their existing condition without undergoing any formal technical inspection, cleaning, or repair process. These products are often sold “as-is” by private individuals or informal resellers, and they typically lack warranties, detailed specifications, or guarantees of functionality. Buyers in this category face high levels of uncertainty, as there is limited transparency about the product’s condition, origin, or previous usage. As a result, used IT markets are frequently characterized by information asymmetry and low buyer trust (Feng, 2024).

In contrast, refurbished IT equipment undergoes a standardized process before resale. This process may include diagnostic testing, data sanitization, hardware repair or replacement, cosmetic cleaning, and functional validation. Refurbished products are typically resold through professional IT Asset Disposition (ITAD) firms, certified resellers, or online marketplaces that enforce minimum quality standards. These products are usually accompanied by product grading (e.g., A/B/C), warranty coverage, and documentation certifying the refurbishment process. As a result,

refurbished equipment often commands a higher price than used products but also delivers greater peace of mind to buyers (James et al., 2024).

This distinction is not merely technical; it has direct implications for consumer perception and trust. Refurbished products are more likely to be framed as sustainable, quality-assured alternatives to new devices, while used products may be viewed as unreliable or inconsistent. In practice, however, the boundary between these two categories is not always well defined. Sellers may use the term “refurbished” to describe lightly tested used products or may skip important steps in the refurbishment process while still marketing items as professionally renewed. This inconsistency contributes to buyer confusion and erodes trust in the secondary IT market as a whole (Fixably, 2023).

For the purposes of this thesis, the term *refurbished* is used to describe products that have undergone some level of professional testing, repair, or reconditioning, and that are accompanied by trust-building signals such as warranties, grading systems, or certified data wiping. The study excludes informal peer-to-peer resales or “used as-is” devices that do not meet these minimum standards. By focusing on the refurbished segment, the thesis targets the part of the circular IT market where communication strategies, trust-building, and sustainability claims are most actively negotiated and contested.

### 1.5 Scope and Contribution

This thesis focuses on the supply-side of the used and refurbished IT equipment market in Europe, with a particular emphasis on how actors communicate trust and sustainability in their sales and marketing practices. Rather than examining consumer preferences or demand-side adoption patterns, the study investigates how IT Asset Disposition (ITAD) companies, brokers, intermediaries, and marketplaces frame their offerings to different buyer types, particularly across B2B and B2C contexts.

The geographic scope is limited to the European market, where circular economy policies and regulatory frameworks are increasingly shaping business practices in the IT sector. While cross-regional variation is considered, the study does not aim to provide country-by-country analysis. Instead, the focus is on identifying common

communication strategies, operational tensions, and decision-making patterns across actor types and market segments.

This research makes two main contributions. First, it addresses a gap in the academic literature by shifting analytical focus from consumers to sellers, who play a central role in determining how trust and environmental value are communicated in the used and refurbished IT supply chain. Second, it provides practical insights for industry actors seeking to improve the credibility, clarity, and effectiveness of their messaging, particularly in a market where inconsistent grading, greenwashing, and limited standardization continue to undermine buyer confidence.

By integrating insights from Trust Theory, Green Marketing Theory, Signaling Theory, and the Theory of Planned Behavior, the thesis offers a multi-dimensional understanding of how used and refurbished IT is positioned in real-world sales environments. The findings aim to inform both academic debate and managerial practice, ultimately supporting the more effective scaling of circular IT solutions in line with environmental and economic goals.

## Chapter 2: Literature Review

This chapter reviews the academic literature on refurbished IT adoption with a focus on supply-side communication strategies. It first distinguishes between used and refurbished products, then explores key drivers of trust such as grading, warranty, and transparency. The chapter also examines how sustainability messaging influences consumer perception, and how communication practices differ between B2B and B2C settings. Regional and cultural variations across European markets are considered, as well as the roles of ITADs, brokers, marketplaces, and service providers. Finally, the chapter identifies critical gaps in the literature, particularly regarding how sellers adapt messaging to market demands and operational constraints.

### 2.1 Used & Refurbished IT Equipment and Consumer Behavior

Consumer behavior toward used IT products is shaped by a range of cognitive, emotional, and contextual factors. One of the primary motivators for adoption is economic value. Multiple studies have shown that reused electronics can be priced 20–50% lower than their new counterparts, making them attractive to both private consumers and businesses seeking cost-effective IT solutions (Esmaeilian et al., 2021). However, while affordability serves as an entry point, price alone does not guarantee adoption, especially in markets where perceived risk and uncertainty remain high.

Trust emerges as a key variable in understanding consumer behavior in this context. According to Trust Theory, purchasing decisions in high uncertainty environments, such as second-hand electronics, depend heavily on perceived competence, reliability, and integrity of the seller (Gefen et al., 2003). These concepts are further elaborated in Chapter 3, which provides a dedicated overview of the theoretical foundations guiding this thesis. Consumers must rely on external signals to reduce information asymmetry and evaluate whether the product they are considering will perform as expected (James et al., 2024). This becomes especially critical in online environments where the buyer cannot physically inspect the product prior to purchase. The presence or absence of trust cues, such as warranty, certification, or professional presentation, can significantly influence buying behavior.

Beyond trust, Theory of Planned Behavior (TPB) offers a psychological framework for understanding how attitudes, perceived control, and social norms affect behavioral intention (Ajzen, 1991). In the case of used IT, positive attitudes toward sustainability and affordability may not always translate into actual purchasing behavior due to uncertainty or fear of quality issues. TPB has been used in recent studies to explain the so-called “intention–behavior gap,” where consumers express willingness to engage in sustainable consumption but do not follow through due to perceived risk, lack of confidence in the product, or absence of social proof (Joshi & Rahman, 2015)

Another important dimension is signaling, which plays a central role in situations where direct evaluation of quality is impossible. Signaling Theory explains how sellers can reduce perceived risk by offering observable indicators of unobservable product attributes (Spence, 1973). In the context of used IT, signals might include technical grading (e.g., A/B/C), warranty duration, eco-certification badges, or references to certified refurbishment or data wiping processes. These signals help establish expectations of quality and durability, thereby influencing trust and behavioral intention.

Furthermore, Green Marketing Theory contributes to this discussion by framing used and refurbished products as not only affordable but also environmentally responsible. When marketed appropriately, used IT products can be positioned as tools for reducing e-waste, conserving resources, and minimizing carbon footprints. However, literature suggests that sustainability claims must be communicated credibly and consistently to avoid perceptions of greenwashing (Peattie & Crane, 2005). Consumers are more likely to act on positive environmental attitudes when marketing messages are backed by verifiable data and when such values are embedded in the brand identity (Peattie & Crane, 2005).

In sum, while consumers are generally attracted to used IT products due to economic value, their purchasing decisions are influenced by a more complex mix of trust, perceived behavioral control, social cues, and credible signaling. These elements must be clearly addressed in marketing and communication strategies if used IT is to gain broader acceptance across consumer segments. Understanding the interplay between rational decision-making and behavioral psychology, as

explained by the four theoretical lenses applied here, is critical for closing the gap between interest and action in used IT equipment adoption.

These theoretical perspectives, especially Trust Theory, Signaling Theory, Green Marketing, and the Theory of Planned Behavior, are elaborated in Chapter 3, which provides the conceptual lens for analyzing communication strategies across actor types.

## 2.2 Relevant Stakeholders in the Used IT Equipment Sector

The refurbished IT sector involves a range of interconnected actors, each contributing to the redistribution and extension of electronic product life cycles. While much of the existing literature emphasizes the roles of IT Asset Disposition (ITAD) companies, brokers, intermediaries, and consumer-facing marketplaces (Esmaeilian et al., 2021), a distinct yet often overlooked category is that of service and maintenance companies. These actors play a central role in extending the life of electronic devices, particularly in enterprise environments, through reactive circularity, a strategy focused on maintaining functionality rather than enabling resale.

### IT Asset Disposition (ITAD) Companies

ITAD companies are responsible for the secure disposal and remarketing of used IT equipment. They typically work with large organizations, such as corporations, banks, or public institutions, to collect decommissioned hardware, ensure data sanitization, and determine whether the devices can be refurbished, reused, or recycled. A key feature of ITADs is their focus on regulatory compliance and documentation, especially around data wiping and asset tracking. In many cases, they conduct basic testing or refurbishment in-house before selling the equipment to brokers or institutional buyers. Their contribution to the circular economy lies in enabling traceability and making high-quality second-hand devices available for reintroduction into the market (Evernex, 2024). While ITADs operate almost exclusively in B2B environments, their standards for quality and reporting influence the trust dynamics of downstream resale.

### Brokers

Brokers act as commercial intermediaries between ITADs or corporations disposing

of equipment and the companies or resellers interested in acquiring it. Unlike ITADs, brokers rarely handle refurbishment or data wiping themselves. Instead, they focus on identifying valuable batches of equipment, managing pricing negotiations, and reselling stock in bulk, often across borders. Brokers play a crucial role in optimizing the flow of goods and ensuring devices reach the most suitable market or buyer segment. Some specialize in specific regions or product categories (e.g., business laptops, smartphones), while others manage mixed lots. Because brokers work with large volumes, their success depends heavily on accurate documentation and transparent communication (Covenco, n.d.). Although they operate in the B2B space, brokers indirectly influence what is available to end consumers via the retailers or marketplaces they supply.

**Traders or Intermediaries**

Traders, also referred to as intermediaries, operate on a more flexible and informal basis than brokers. Rather than purchasing and holding inventory, they act as market matchmakers, responding to buyer demand by sourcing suitable stock from their network of suppliers. Their business model is centered on speed, relationships, and the ability to find and negotiate deals in real time. Traders are particularly active in international transactions and often support small resellers or companies that lack direct access to large suppliers. While their margins may be lower, they fill an essential gap by increasing liquidity in the market and reducing friction between supply and demand (Aucto, 2024).

**Marketplaces**

Online marketplaces such as Back Market or Refurbed have transformed the visibility and accessibility of refurbished IT products for individual consumers and small businesses. These platforms connect certified sellers, typically refurbishers, brokers, or ITADs, with end users via standardized listings, quality controls, and customer support. Most marketplaces enforce minimum warranty periods, grading systems, and return policies to ensure consumer protection. Their value lies in building trust in the refurbished category, which is often associated with uncertainty and inconsistent quality in the eyes of first-time buyers. By offering user-friendly interfaces, sustainability metrics (such as estimated $CO_2$ savings), and verified seller programs, marketplaces contribute not only to sales but also to the normalization of

second-hand technology in consumer culture (Pijak, 2023). Some marketplaces operate purely in B2C, while others have begun to expand toward B2B transactions.

**Service & Maintenance Companies**

These companies support the circular economy not by reselling equipment, but by extending the operational life of existing hardware through repair, component replacement, and technical support. Their clients are typically large organizations under long-term IT service contracts. When a server or workstation fails, service firms source second-hand parts, often from brokers or traders, to carry out the repair, instead of replacing the full unit. Their procurement decisions are driven by functionality, compatibility, and delivery time, rather than cosmetic condition or branding. This practice, sometimes referred to as reactive circularity, allows organizations to delay hardware upgrades and reduce e-waste without engaging in full product refurbishment (Shyft Global Services, n.d.). Although these companies are rarely visible to end consumers, they play a vital role in maintaining performance continuity in corporate IT systems.

### 2.3 Trust in used IT Products: Grading, Warranty, and Transparency

Trust is a foundational component of consumer decision-making in high-involvement purchases, and this is especially relevant in the used IT sector. Buyers, whether consumers or professional resellers, must often assess product condition and reliability based on external cues, without the opportunity to verify the product themselves. In this context, Signaling Theory and Trust Theory offer more current and nuanced explanations. Grading systems, warranty terms, and transparent documentation serve as trust-building signals that reduce perceived risk and bridge the information gap between seller and buyer (James et al., 2024). For example, standardized grading (e.g., A/B/C), clear test logs, and data wiping certifications can significantly influence purchasing behavior by enhancing perceived seller competence and product reliability (Gefen et al., 2003). These trust signals are particularly important in online transactions and cross-border B2B deals, where relational trust is not yet established and product condition cannot be directly inspected.

**Grading Systems**

Grading systems are among the most widely used tools for communicating the physical and functional condition of used IT products. Standardized categories (often A, B, C) are used across marketplaces and distributors to indicate cosmetic wear, screen condition, battery health, and functionality. Studies suggest that clear and consistent grading reduces uncertainty and enhances consumer confidence, particularly in online channels where physical inspection is not possible (Feng, 2024). However, inconsistency in grading standards across platforms can erode trust. One study found that consumers were less likely to repurchase from sellers whose grading system was perceived as vague or inflated (Esmaeilian et al., 2021).

**Warranty Policies**

Warranties serve as a credible signal of product reliability and seller accountability. While new devices often come with 1–2 year warranties, refurbished products typically offer more limited guarantees, often ranging between 30 and 90 days. Research shows that even a short warranty can significantly improve consumers' likelihood of purchase by reducing perceived risk and enhancing confidence in the seller. In a recent mixed-method study, Barkhi et al. (2024) identified warranty availability as a key factor in consumer decision-making for refurbished electronics, noting that warranty duration and post-sale support help alleviate concerns about future product issues. Their model places warranty among the most influential elements that, although not strong drivers themselves, are highly dependent on other trust-building signals and play a crucial role in minimizing purchase hesitation. In a cross-European survey, warranty length ranked among the top three decision criteria for refurbished IT buyers, especially in B2C settings (Euroconsumers, 2025).

**Transparency in Product and Process**

Seller transparency plays a crucial role in reducing information asymmetry in the resale of refurbished IT products. In online environments, where buyers often cannot inspect products physically, trust must be built through external signals such as grading accuracy, detailed product descriptions, and verifiable certifications. When sellers provide clear and consistent information about product condition and testing, it improves buyer confidence and reduces perceived risk. This is particularly important for refurbished electronics, where condition and provenance are not

always obvious. Research shows that high-quality signals such as transparent descriptions, warranties, and third-party certifications significantly enhance consumer trust in refurbished products (James et al., 2024).

**Marketplace Mechanisms and Platform Trust**

Marketplaces such as Back Market, Refurbed, or Swappie play a central role in building consumer trust by acting as structured intermediaries between sellers and buyers. These platforms typically enforce standardized grading systems, buyer protection policies, and minimum warranty requirements to ensure consistent quality across listings (Euroconsumers, 2025; James et al., 2024). Their use of public reviews and seller ratings fosters accountability and helps reduce the perception of risk, particularly important in B2C transactions, where end users often lack any direct relationship or technical knowledge of the vendor (Lopez & Legardeur, 2024).

However, most of these B2C-focused marketplaces concentrate primarily on Grade A products, where the visual and functional condition closely resembles new. Grades B and C remain a small share of their offering and are often treated with uncertainty, despite the fact that many of these devices are still fully functional and could meet the needs of more cost-conscious or sustainability-driven buyers (Euroconsumers, 2025). The current emphasis on visual perfection limits the visibility and circulation of perfectly usable products with minor wear (Peattie & Crane, 2005).

That said, a few marketplaces have begun expanding their services toward B2B clients, adapting their formats to allow for larger batch purchases, technical documentation, or negotiated pricing structures. This shift reflects a growing recognition that the trust-building mechanisms developed in the consumer space can also support professional buyers, provided that platform requirements are adjusted to business needs (Lopez & Legardeur, 2024).

**Transactional vs. Relational Trust**

Literature distinguishes between transactional trust, based on calculative assessments such as warranties or grading, and relational trust, which emerges over time through repeated interactions, shared norms, and mutual reliability (Poppo, Zhou, & Li, 2015). In B2B markets, relational trust often outweighs product-level

guarantees. In contrast, first-time buyers lean heavily on transactional trust signals, making consistent communication and grading critical for acquisition.

In summary, trust in used IT is shaped by a combination of tangible signals (grading, warranty), technical transparency (data security, sourcing), and social mechanisms (platform reputation, personal reliability). Sellers must understand their audience: B2C customers expect standardized assurances, while B2B clients build trust through performance and consistency. Successful sellers often blend both approaches, tailoring their strategy by segment, channel, and geography.

### 2.4 Sustainability-Driven Marketing in used IT Equipment

As environmental awareness continues to grow, sustainability has become a powerful theme in marketing communications, particularly in industries associated with waste reduction and circularity. The used IT sector is well positioned to benefit from this shift, offering both economic and ecological value. However, communicating sustainability effectively is complex, especially when consumers face trust barriers or when sellers prioritize operational efficiency over storytelling. This section explores how used IT firms use, or neglect, sustainability driven marketing, and what the literature reveals about its impact on consumer trust and behavior.

#### Green Marketing: Core Concepts and Applications

Green marketing refers to strategies that highlight a product's environmental benefits in order to appeal to eco-conscious consumers (Peattie & Crane, 2005). Common tools include eco-labels, CSR initiatives, sustainability storytelling, and terms such as "second-life," "planet-friendly," or "zero-waste." In the context of used IT, green marketing aims to reframe used electronics as responsible and ethical choices rather than inferior substitutes for new devices.

Several studies confirm that consumers respond positively to sustainability messaging, especially when it is credible and clearly presented. A 2024 review of circular economy communication strategies found that storytelling and transparency improved consumer confidence and willingness to pay (Lopez & Legardeur, 2024). For example, emphasizing environmental benefits like 'reducing e-waste and saving

70 kg of $CO_2$' in product descriptions may enhance consumer engagement and interest, as suggested by studies on sustainability messaging effectiveness.

However, green marketing can also backfire if the messaging is vague, exaggerated, or inconsistent. The concept of greenwashing, where companies use environmental claims without meaningful action, has been shown to reduce trust and lead to consumer backlash (Delmas & Burbano, 2011). In used IT, this risk is particularly high when sellers make sustainability claims but fail to back them with visible practices (e.g., poor packaging, no data on refurbishment standards).

**Eco-Certifications and Visual Proof**

Certifications such as TCO Certified, EPEAT, and ISO 14001 can enhance the legitimacy of green claims. They serve as third-party signals of sustainable sourcing, refurbishment quality, and environmental compliance. However, studies show that certifications are only effective when consumers understand and recognize them, which is often not the case (James et al., 2024; Delmas & Burbano, 2011).

Beyond certifications, visual communication plays a vital role. Infographics, $CO_2$ meters, and lifecycle statistics help make environmental impact tangible and persuasive. For instance, emphasizing environmental benefits like 'reducing e-waste and saving 70 kg of $CO_2$' in product descriptions may enhance consumer engagement and interest, as suggested by studies on sustainability messaging effectiveness (Lopez & Legardeur, 2024).

**Cultural and Regional Marketing Variation**

Sustainability messaging does not have equal impact across all European markets. Northern European consumers, especially in countries like Germany, Sweden, and the Netherlands, tend to value sustainability more highly and may respond positively to detailed environmental framing (European Commission, 2023). In contrast, Southern European and Eastern markets are generally more price-sensitive, and environmental concerns may rank lower in purchasing priorities (European Commission, 2023).

**B2B vs. B2C: Messaging Divergence**

The effectiveness of green marketing varies significantly between B2B and B2C contexts. In B2B transactions, sustainability is rarely a decisive factor. Purchasing decisions tend to prioritize price, stock availability, lead times, and technical specifications. Environmental considerations typically only emerge when driven by ESG requirements, regulatory pressure, or public procurement frameworks.

In contrast, B2C markets are far more responsive to sustainability narratives. Environmentally conscious consumers are increasingly willing to pay a premium for products that align with their values, provided that the messaging is credible and supported by transparent, data-backed claims. This creates a strategic opportunity for platforms and consumer-facing sellers to leverage eco-ethics, certifications, and storytelling to differentiate their offerings and increase trust.

Eco-friendly marketing strategies, such as green advertising and brand innovativeness, have a strong influence on consumer loyalty and repurchase intentions in B2C environments. In contrast, B2B buyers tend to approach sustainability claims with greater scrutiny, often requiring measurable outcomes and verifiable data. This divergence highlights the need to tailor sustainability messaging to the expectations, decision-making logic, and risk tolerance of the intended audience (Pančić, M., Serdarušić, H., & Ćućić, D., 2023).

### 2.5 Regional and Cultural Variation in used IT Adoption

The adoption of used IT products is not uniform across Europe. Differences in consumer behavior, market maturity, environmental awareness, and trust expectations all contribute to a fragmented landscape, where the same product and message may have very different effects depending on the local context. Understanding this variation is essential for developing localized marketing strategies and communication approaches.

#### Economic and Cultural Factors in Adoption

Used IT products often perform best in markets where economic motivations align with moderate environmental awareness. In Southern Europe, for example, countries like Spain and Italy exhibit strong interest in lower-cost electronics, particularly among young people and small businesses (Lopez & Legardeur, 2024). However,

price is typically the main driver, and sustainability plays a secondary role unless clearly linked to economic benefits (Nguyen et al., 2019).

In contrast, consumers in Germany, the Netherlands, and Scandinavia tend to show higher trust in certified products, greater concern for environmental impact, and more interest in long-term value (European Commission, 2023). These regions also have higher circular economy awareness, better e-waste infrastructure, and more government-led initiatives supporting reuse and refurbishment (Peattie & Crane, 2005).

A useful lens to understand these variations is Hofstede's cultural dimensions theory, which suggests that countries like Italy and Spain rank relatively high in uncertainty avoidance, meaning consumers may prefer the predictability and perceived reliability of new products (Hofstede, 2011).

In contrast, more individualistic and environmentally progressive cultures such as the Netherlands or Germany are more open to non-traditional consumption patterns like refurbishment, particularly when quality is guaranteed (Hofstede, 2011).

Cultural values influence not only whether consumers adopt used IT products, but how they justify their decision. In collectivist societies, second-hand purchases may carry social stigma, while in others, especially where sustainability is tied to personal identity, refurbished products may carry positive symbolic value (Berger & Heath, 2007).

**Language and Regulation Adaptation**

Regional variation is also influenced by language preferences, digital maturity, and regulatory differences. In some markets, such as Poland and Hungary, used IT Equipment sales have grown slowly due to lower trust in online purchasing and limited exposure to circular economy education (European Commission, 2023). Furthermore, local regulations such as VAT rules, WEEE compliance, and warranty requirements shape what sellers can offer and what consumers expect (Lopez & Legardeur, 2024).

**Implications for Market Strategy**

The diversity across European markets suggests that used IT Equipment sellers must localize both their sales strategies and communication styles. A "one-size-fits-all" message, whether focused on sustainability or technical quality, is unlikely to resonate across all regions (Lopez & Legardeur, 2024; European Commission, 2023). Sellers who operate internationally should adapt the level of detail in product descriptions, decide whether to lead with pricing or environmental value, and tailor the format of messaging based on local expectations (de Mooij, 2019).

These adjustments are especially important in online marketplaces where consumers from multiple countries may view the same listings but bring different trust expectations, cultural frames, and purchasing behaviors to the table. A localized approach helps reduce friction, increase credibility, and align communication with market-specific buying criteria (European Commission, 2023; Lopez & Legardeur, 2024).

**Summary: One Market, Many Mindsets**

Regional and cultural differences play a critical role in shaping the perception, evaluation, and acceptance of used IT products. A nuanced understanding of local behavior patterns, economic drivers, and environmental attitudes is essential for any company seeking to scale across Europe’s fragmented circular economy landscape. Ultimately, selling used IT Equipment in Europe requires thinking like a local while operating like a global player.

### 2.6 Identified Gaps and Research Contribution

While the literature on refurbished IT has matured in recent years, most existing studies adopt a consumer-focused, quantitative lens, leaving the supply-side of the market underexplored. Research has successfully identified critical drivers of adoption, such as price sensitivity, warranty coverage, and the presence of transparent information (Esmaeilian et al., 2021). Signaling Theory and Trust Theory have been widely applied to explain how cues like grading systems or certifications reduce uncertainty in B2C contexts (James et al., 2024). However, these studies

often overlook how sellers operationalize those signals in practice, particularly across heterogeneous B2B and B2C channels.

First, there is a lack of research on supply-side communication strategy. Few studies investigate how ITADs, brokers, and marketplaces decide what to communicate, which channels to prioritize, and how to tailor their messaging for different buyer profiles. In a market where actors face real-world constraints, such as tight margins, limited staff, and cross-border variation, understanding the internal decision-making behind communication practices becomes essential. The current literature does not explain how sellers balance standardization with flexibility or how they perceive the trade-offs between operational efficiency and green messaging.

Second, although cultural and regional differences are widely acknowledged in consumer behavior studies (e.g., European Commission, 2023; Hofstede, 2011), very few works explore how sellers adapt their communication across European markets. For example, it remains unclear how documentation, pricing logic, or sustainability narratives are adjusted when targeting buyers in Germany versus Spain or Italy. This thesis fills that gap by analyzing how regional expectations influence sellers' messaging, grading standards, and trust-building tactics.

Third, the distinction between B2B and B2C communication remains under-theorized. Much of the literature focuses on end-consumer behavior and overestimates the applicability of green marketing strategies to wholesale or institutional contexts. Yet, as this thesis shows, environmental storytelling, certifications, and product visuals are often irrelevant or secondary in B2B transactions, where price, documentation, and supply reliability dominate. This research offers a more differentiated view, showing how sustainability narratives are selectively used and often subordinated to operational concerns in B2B environments.

Lastly, there is limited research connecting trust-building signals with sustainability framing. While many studies examine these dimensions separately, few consider their interaction: for example, whether warranty amplifies the credibility of green messaging, or how transparency affects the reception of $CO_2$ savings claims. This

thesis contributes to a more integrated understanding of how these variables co-exist, and sometimes conflict, in real-world communication strategies.

To address these gaps, this thesis adopts a qualitative, supply-side approach. By conducting semi-structured interviews with a range of refurbished IT actors, including ITADs, brokers, intermediaries, and marketplaces, it reveals how trust and sustainability are actually communicated in practice. It also shows how sellers adjust their messaging based on buyer type (B2B vs. B2C), cultural context, and resource availability.

In doing so, this research expands the application of Trust Theory, Green Marketing Theory, Signaling Theory, and the Theory of Planned Behavior by applying them to a less studied side of the market: the strategic and operational reality of sellers. It offers both theoretical insights and practical implications for how used IT firms across Europe can communicate more effectively and credibly, aligning sustainability with trust, and market fit with messaging relevance.

## Chapter 3: Theoretical Framework

This chapter provides the theoretical foundation for analyzing communication strategies, trust dynamics, and behavioral intentions in the used and refurbished IT sector. Drawing on insights from the literature review (Chapter 2), this chapter outlines four interrelated theoretical lenses that are Trust Theory, Green Marketing Theory, Theory of Planned Behavior (TPB), and Signaling Theory, that help explain how consumers make decisions under uncertainty, how sustainability influences perception, and how sellers can strategically manage communication. These theories are then synthesized into a conceptual model that informs the empirical design and analysis of this thesis.

### 3.1 Trust Theory in Consumer Decision-Making

Trust plays a central role in shaping consumer decisions, particularly in contexts where uncertainty and perceived risk are high. Trust is defined as the willingness of a consumer to be vulnerable to a product or seller based on the belief that the other party is competent, honest, and benevolent (Mayer, Davis, & Schoorman, 1995). In online and second-hand markets, where physical inspection is not always possible, trust becomes a substitute for firsthand experience, guiding purchasing decisions and reducing the perceived risk associated with unknowns.

In the context of refurbished or used IT equipment, trust is particularly relevant due to the inherent uncertainties associated with used electronics. Consumers are often concerned about whether the product will function properly, how long it will last, whether it contains any hidden defects, and whether it will meet their expectations. Additionally, there is often uncertainty about how the product was previously used and whether it was properly data-wiped, especially in the case of laptops and smartphones that may store sensitive data (eSmart Recycling, 2024).

Trust is a multidimensional construct, typically encompassing beliefs in the seller's ability (competence), integrity (honesty), and benevolence (concern for the buyer's interest). In the refurbished and used IT market, competence can be signaled through professional refurbishment processes, detailed product descriptions, and third-party certifications. Integrity is reflected in the transparency of communication, clear terms of sale, and reliable after-sales service. Benevolence may be inferred

from generous return policies, responsive customer support, and seller actions that go beyond transactional expectations (Mayer, Davis, & Schoorman, 1995).

The presence of product warranties, clear grading systems, and seller transparency has been found to increase consumer trust in refurbished goods significantly. Standardized grading systems (e.g., "Grade A - Like New") help reduce ambiguity and reinforce expectations about product condition, while extended warranties offer confidence in the durability and quality of products. A 12-month warranty, for instance, may signal that the seller has conducted a thorough refurbishment process and is confident in the product’s performance. This reduces the consumer's perceived risk and increases their likelihood of purchasing (Sabeti, 2023).

Trust also plays a critical role in online marketplaces, where buyers and sellers often do not interact face-to-face. In such contexts, the absence of physical product inspection means that buyers rely more heavily on indicators of seller reliability, such as ratings, reviews, and platform guarantees. Platforms like Back Market, Refurbed, and Amazon Renewed have developed systems to foster trust, including buyer protection programs and vetting processes for third-party sellers. These systems help mitigate the asymmetry of information between buyers and sellers and reduce the perceived risk of purchase (Pavlou & Gefen, 2004).

Furthermore, the development of trust is not only influenced by seller-specific attributes but also by brand image, platform reputation, and consumer experience. If a platform is known for curating high-quality refurbished electronics and ensuring customer satisfaction, consumers are more likely to trust individual sellers within that ecosystem. Similarly, positive past experiences with refurbished products can reinforce trust, while negative experiences can increase skepticism and reduce future purchase intentions (Pavlou & Gefen, 2004).

A recent industry perspective highlights that trust is a decisive factor in consumer decisions regarding refurbished products. According to Sabeti (2023), when buyers perceive a seller as transparent and reliable, they are significantly more willing to choose refurbished items, even if the price is not the lowest available. This suggests that building consumer trust can directly enhance competitiveness in the refurbished

IT market, particularly by reducing perceived risk and reinforcing the credibility of the product offering.

Lastly, trust is dynamic and develops over time through repeated interactions, feedback, and social proof (Mayer, Davis, & Schoorman, 1995). In markets characterized by repeat purchases and brand familiarity, such as smartphones or laptops, trust can accumulate, making consumers more comfortable with used and refurbished options. Conversely, if trust is broken, due to misleading information, faulty products, or poor customer service, it can be difficult to rebuild and may negatively impact not only individual sellers but the entire refurbished product category.

In summary, trust is a central determinant of consumer behavior in the used and refurbished IT market. It reduces perceived risk, facilitates decision-making under uncertainty, and enhances the perceived value of pre-owned electronics. For companies and platforms in this sector, investing in trust-building mechanisms, such as transparency, warranties, grading systems, and responsive service, is essential for encouraging adoption and scaling consumer demand (Patel, 2023).

### 3.2 Green Marketing Theory

Green marketing refers to the design, development, and promotion of products based on their environmental performance or sustainability attributes. It not only involves highlighting a product's eco-friendly features but also encompasses a broader commitment to responsible production, transparency, and ethical communication (Peattie & Crane, 2005). In recent years, green marketing has gained relevance as consumers become more environmentally conscious and demand greater sustainability from the brands they support.

In the used and refurbished IT market, particularly in the Business-to-Consumer (B2C) segment, green marketing plays a dual role: it serves both to inform and to differentiate. Used and refurbished electronics inherently support circular economy principles by reducing e-waste and minimizing the need for virgin materials and energy-intensive production processes. However, these environmental benefits are not always evident to consumers. Therefore, green marketing serves as a strategic tool to communicate these advantages clearly and persuasively (Pravin, 2024).

Recent studies show that sustainability-related messaging can positively influence consumer perceptions and reduce the stigma sometimes associated with second-hand products. When firms articulate the environmental impact of used and refurbished IT equipment, such as the reduction in CO2 emissions or raw material usage, they highlight value propositions that resonate with eco-conscious consumers (Camilleri et al., 2023). For example, platforms like Refurbed or Back Market integrate carbon savings counters and sustainability claims into their user interfaces to visually reinforce the ecological value of their offerings.

Green marketing tools include eco-labels (e.g., Energy Star, EPEAT), third-party certifications, environmental impact metrics, and Corporate Social Responsibility (CSR) storytelling. Among these, third-party certifications tend to carry the highest level of credibility, particularly when the certifying body is independent and widely recognized. According to Mallick et al. (2024), consumers exposed to verifiable eco-labels and transparent sustainability reporting are significantly more likely to trust green claims, which in turn strengthens their purchase intentions.

However, the credibility of green marketing depends heavily on the company's ability to avoid greenwashing, a practice where firms exaggerate or falsify environmental claims for promotional gain. In the context of used and refurbished IT, this risk is especially relevant due to the product's second-hand nature, which can easily become the target of consumer skepticism. To mitigate this, companies must provide traceable product histories, accurate grading, and documentation of environmental impact. Green marketing should be supported by operational transparency and a proven record of sustainability (Mallick et al., 2024).

Beyond rational appeals, emotional branding also plays an important role. Highlighting the social and environmental impact of choosing refurbished over new, such as helping reduce global e-waste or contributing to climate goals, can inspire a sense of shared responsibility and ethical consumption. This is particularly effective among younger consumers and urban professionals, who often see sustainable consumption as part of their identity (Camilleri et al., 2023).

Moreover, green marketing can serve as a trust-building mechanism. In the used and refurbished IT sector, where consumers already contend with uncertainty about

product reliability, clearly framed sustainability messaging can compensate by positioning the product as a responsible and future-oriented choice. According to Sabeti (2023), environmental messaging that is supported by certifications and transparent company practices significantly enhances consumer trust, especially in first-time purchases.

Finally, green marketing contributes to brand differentiation. In a competitive market where used and refurbished products may be similar in price and technical specifications, a company's environmental positioning can become a decisive factor. Brands that effectively communicate their sustainability values are more likely to foster brand loyalty, attract purpose-driven consumers, and justify premium pricing when combined with trust-enhancing elements (Peattie & Crane, 2005).

In summary, green marketing in the used and refurbished IT B2C market is more than an ethical choice, it is a strategic necessity. By authentically and transparently communicating environmental benefits, leveraging credible certifications, and reinforcing social responsibility, companies can not only build consumer trust but also boost willingness to purchase and long-term brand engagement (Peattie & Crane, 2005).

### 3.3 Theory of Planned Behavior (TPB)

The Theory of Planned Behavior (TPB), developed by Ajzen (1991), provides a comprehensive framework for understanding how individuals form intentions to engage in specific behaviors and how these intentions translate into action. TPB is especially useful in analyzing consumer decisions involving sustainable or non-mainstream product choices (such as purchasing used and refurbished IT equipment) where motivations, social influences, and perceived constraints all interact.

According to TPB, behavioral intention is shaped by three core components:

1. Attitude toward the behavior: the individual's positive or negative evaluation of performing the behavior.
2. Subjective norms: perceived social pressure from important referent groups (family, friends, colleagues).

3. Perceived behavioral control (PBC): the perceived ease or difficulty of performing the behavior, which is influenced by past experiences and anticipated obstacles.

**Application to Used and Refurbished IT Purchases**

In the case of used and refurbished IT equipment, attitudes are influenced by beliefs regarding quality, economic value, environmental benefit, and potential risk. Consumers who associate refurbished devices with affordability and environmental responsibility are more likely to develop favorable attitudes. However, this may be counterbalanced by skepticism about reliability or product lifespan. For instance, if a consumer believes that buying refurbished is a smart way to reduce environmental impact without sacrificing performance, this generates a positive evaluative stance (Abbey et al., 2015).

Subjective norms are increasingly relevant as social perceptions of sustainability evolve. Buying second-hand products has historically been stigmatized in some markets, perceived as a sign of economic constraint or inferior quality. However, this perception is shifting, especially among younger generations and urban consumers, where conscious consumption and minimalism are viewed positively (Camilleri et al., 2023). Marketing campaigns and peer endorsements can reinforce this normative shift by framing used and refurbished electronics as both socially acceptable and ethically commendable.

Perceived behavioral control includes consumers' beliefs about their ability to find trustworthy sellers, navigate technical specifications, understand product conditions, and handle potential post-purchase issues. High perceived control correlates with a greater likelihood of purchase. Factors like detailed product listings, responsive customer service, and intuitive return policies help enhance this sense of control. Conversely, poor website navigation or a lack of technical transparency may lower consumers' confidence in completing a purchase successfully (Abbey et al., 2015).

**Intention-Behavior Gap**

One of the TPB's key contributions is its ability to explain the intention-behavior gap, a common phenomenon in sustainable consumption. Many consumers express

strong pro-environmental values and intentions to support circular economy practices, yet their actual purchase behavior remains inconsistent. This gap may be explained by unexpected obstacles (e.g., high prices, limited selection), social judgment, or residual distrust in refurbished products (Nguyen et al., 2019).

Bridging this gap requires targeted strategies that address each of the TPB components:

- Improve consumer attitudes by educating them about performance testing, refurbishment standards, and warranty coverage.
- Shift social norms through influencer partnerships and user-generated content that normalize second-hand purchases.
- Enhance perceived control by streamlining the buying process, offering flexible payment and return options, and improving customer support.

Empirical studies confirm the utility of TPB in predicting eco-conscious behaviors. For example, Yadav and Pathak (2016) found that TPB variables significantly explained young Indian consumers' intentions to buy green products. In the European context, Camilleri (2023) demonstrated that attitudes and PBC were the strongest predictors of green purchase behavior, with subjective norms gaining strength in digital and peer-influenced environments.

In summary, TPB provides a robust framework to understand and influence the adoption of used and refurbished IT equipment. It emphasizes the need to not only shape favorable intentions through attitude formation and social influence but also to reduce barriers and enhance consumer confidence to convert these intentions into real purchasing behavior (Ajzen, 1991).

### 3.4 Signaling Theory

Signaling Theory, developed by Spence (1973), provides a critical framework for understanding behavior in markets characterized by information asymmetry. In such markets, one party (typically the seller) has more or better information about a product than the other party (typically the buyer). This information gap can lead to hesitation or adverse selection unless the better-informed party sends credible "signals" to indicate the quality or reliability of the product or service offered.

In the context of the used and refurbished IT market, this theory is highly relevant. Buyers often cannot physically inspect the product or verify its condition before purchase, especially in B2C e-commerce settings. Therefore, they rely on signals provided by the seller to make inferences about product quality, seller credibility, and potential risk. The presence and strength of these signals can significantly influence trust and willingness to purchase (Gefen et al., 2003).

**Types of Signals in Used and Refurbished IT**

There are several key signals that sellers and platforms can use to reduce uncertainty and communicate trustworthiness in the used and refurbished electronics market:

- Grading systems: Standardized grading (e.g., Grade A, B, C) offers a clear and recognizable way to communicate cosmetic and functional condition. A "Grade A" laptop may imply minimal or no signs of wear, while "Grade B" may indicate light cosmetic flaws. These standards help set consumer expectations and reduce ambiguity (Fixably, 2023)..
- Warranty and return policies: A robust warranty (e.g., 12 months) signals confidence in the quality and reliability of the product. It also reduces perceived financial risk for the buyer. Similarly, flexible return policies signal that the seller is willing to stand behind the product, further reinforcing trust (Xtracover, 2023).
- Third-party certifications: Certifications such as ISO 9001 or R2 for electronics refurbishment provide external validation of refurbishment processes. These signals assure buyers that the product has been restored under specific standards and audited procedures, mitigating concerns about quality or safety (Wisetek Market, 2023).
- Platform-level guarantees: Platforms like Back Market and Refurbed act as intermediaries that vet sellers, monitor transaction quality, and offer money-back guarantees. These platform-level assurances serve as meta-signals that further reduce information asymmetry and encourage consumer confidence (Refurbed, 2024).

- Visual and technical transparency: Detailed product photos, full technical specifications, and accurate descriptions of wear or defects act as direct signals. The more transparent and comprehensive the information provided, the less room there is for consumer doubt or surprise (Ma et al., 2018).

**Signal Strength and Credibility**

For a signal to be effective, it must be both visible and credible. Visibility ensures that the consumer notices and processes the information, while credibility relates to the belief that the signal truthfully reflects the underlying product quality (Spence, 1973). For instance, a seller who offers a warranty but has a poor reputation for honoring it sends a weak signal. Conversely, a well-reviewed seller with consistent, detailed listings and high customer satisfaction provides a strong, credible signal that reassures the buyer.

According to recent research, strong signaling practices significantly influence online purchase behavior in second-hand markets. James et al. (2024) found that warranty information, seller reviews, and third-party endorsements were among the top predictors of purchase intention in used and refurbished electronics. The study also highlighted that visual signals (such as consistent branding and product photography) enhance perceived professionalism and reduce perceived risk.

**Signaling as a Competitive Advantage**

In a saturated market where products often have similar technical specifications and prices, effective signaling can become a source of differentiation (Spence, 1973). Sellers that invest in high-quality listings, strong return policies, and transparent grading earn competitive advantages, not just by increasing sales, but by building long-term trust and brand equity (Malak et al., 2021).

Furthermore, platforms that systematize and standardize these signals, such as through automatic badges, certification tiers, or visible seller ratings, can create an environment where consumers feel safe to make repeat purchases. This contributes to the normalization of used and refurbished IT consumption in B2C settings, fostering broader acceptance and demand (Malak et al., 2021).

In summary, Signaling Theory provides a powerful lens through which to understand how used and refurbished IT products can overcome information asymmetry and consumer hesitation. By using clear, consistent, and credible signals, such as warranties, certifications, grading systems, and platform guarantees, sellers and platforms can enhance perceived quality, build trust, and ultimately increase consumer willingness to purchase (Spence, 1973).

### 3.5 Conceptual Model: Trust, Signals, and Strategic Communication

This conceptual model synthesizes the key variables, actor-specific logics, and theoretical frameworks that shape how trust and purchase intent are generated in the refurbished IT market. Built from both the literature (Chapter 2) and empirical findings (Chapter 5), the model focuses on four strategic communication levers, price, warranty, transparency, and green messaging, and their varying relevance across B2B and B2C contexts, as well as actor types such as ITADs, brokers, marketplaces, and service firms.

At the core of the model lies trust, which mediates how these variables influence willingness to purchase. In B2C, trust is largely transactional, shaped by visible signals such as warranties, grading, and platform guarantees (Sabeti, 2023). In B2B, trust tends to be relational, grounded in documentation quality, supplier consistency, and repeated interaction (Gefen et al., 2003).

Each communication lever plays a distinct role depending on the actor and market setting:

- Price is a key motivator in broker and marketplace transactions, particularly in cost-sensitive regions (Abbey et al., 2015).

- Warranty is a strong trust signal in B2C but less relevant in B2B, where buyers rely more on supplier history and internal testing.

- Transparency reduces uncertainty through product grading, certifications, and technical documentation (Fixably, 2023).

- Green messaging is more influential in B2C, especially in sustainability-conscious regions, while B2B actors often deprioritize it unless required by ESG mandates.

These variables are interpreted through four theoretical lenses:

- Trust Theory explains how buyers assess seller reliability in conditions of uncertainty (Mayer et al., 1995).

- Signaling Theory shows how sellers convey unobservable quality through credible cues like warranties and grading (Spence, 1973).

- Green Marketing Theory highlights how environmental messaging can enhance perceived value in consumer markets (Peattie & Crane, 2005)

- Theory of Planned Behavior (TPB) helps explain how attitudes, norms, and control perceptions shape purchase intention (Ajzen, 1991).

The model also includes moderating factors such as platform constraints, cultural preferences, and buyer type, recognizing that signal effectiveness is highly context-dependent.

Finally, the model reflects the structure of the research questions outlined in Chapter 1, offering a framework for analyzing how used and refurbished IT actors communicate trust and sustainability across B2B and B2C segments.

## Chapter 4: Methodology

### 4.1 Philosophical Assumptions & Qualitative Paradigm

In social research, two foundational philosophical paradigms are commonly contrasted: positivism and interpretivism.

Positivism asserts that reality is objective and can be measured and understood through observation, experimentation, and quantitative analysis. It is typically associated with hypothesis testing, statistical generalizability, and the search for universal laws. Positivist studies assume that human behavior can be analyzed using the same tools as natural sciences, often isolating variables to measure causal relationships (Creswell, 2014).

By contrast, interpretivism holds that reality is socially constructed and best understood through the meanings individuals assign to their experiences. It emphasizes context, perspective, and subjective interpretation, arguing that human behavior is complex, dynamic, and influenced by values, beliefs, and social norms (Schwandt, 2000). Rather than seeking universal truths, interpretivist researchers aim to uncover how people make sense of their world in specific settings.

This thesis adopts an interpretivist stance because the research focuses on how industry actors perceive, interpret, and communicate complex constructs like trust, product quality, and sustainability within the used and refurbished IT sector. These constructs are not directly observable or measurable in a standardized way, and they vary significantly across regions, organizational roles, and cultural contexts.

A positivist approach would not be best suited here, as it would require predefined variables and metrics for phenomena like "transparency" or "green communication," which this study instead seeks to explore inductively. The interpretivist paradigm allows for the nuanced, context-sensitive inquiry needed to understand how ITADs, brokers, and marketplaces construct and navigate meanings in their strategic communication and operational choices.

Accordingly, a qualitative research design was selected. This approach prioritizes depth over breadth and facilitates the exploration of meanings, practices, and

adaptations across varied contexts. Unlike quantitative methods, which are more suitable for hypothesis testing or large-scale pattern identification, the qualitative paradigm enables the capture of rich, first-hand insights from industry actors who operate at the core of circular IT ecosystems (Denzin & Lincoln, 2011).

### 4.2 Research Design & Justification

This study employs a qualitative research design based on semi-structured interviews. This approach was chosen for its ability to capture in-depth insights into the communication strategies, trust-building mechanisms, and sustainability practices adopted by various actors in the refurbished IT supply chain. The design is particularly suited to the exploratory nature of this research, which seeks to understand how strategic decisions are shaped by contextual factors such as market segment (B2B vs. B2C), regional variation, and actor type.

Semi-structured interviews offer a balance between consistency and flexibility. While all interviewees were asked a core set of questions aligned with the research objectives, particularly regarding price, warranty, transparency, green messaging, and regional practices, interviewers were free to pursue relevant tangents, clarifications, or case-specific anecdotes. This allowed the research to remain both systematic and responsive to the lived realities and expertise of the participants.

Qualitative research is especially appropriate in markets where many relevant behaviors and decision criteria are informal or tacit. As seen in both the literature (eg Esmaeilian et al., 2021) and the interviews conducted for this study, used and refurbished IT transactions often rely on context-specific cues, practical knowledge, and interpersonal trust, factors that are not easily captured through surveys or structured instruments. A qualitative design thus provides the depth required to analyze not only *what* companies do, but *how* and *why* they do it.

Furthermore, this research aims to contribute new insights from the supply-side perspective, which has been underrepresented in the existing literature. Whereas most previous work has focused on consumer attitudes or willingness to pay, this study focuses on the strategic mindset of sellers, particularly ITADs, brokers, and intermediaries, and how they adapt communication practices across markets. A

qualitative, interview-based design was the most effective way to explore this domain.

### 4.3 Sampling Strategy

This study employed purposive sampling, a widely used technique in qualitative research for selecting information-rich participants who can provide detailed insights into the subject matter (Patton, 2002). Given the thesis's emphasis on supply-side dynamics in the refurbished IT market, participants were selected based on their active roles in either IT asset disposition, refurbishment, or trading activities within the circular economy.

The sampling was designed to reflect variation across both actor types and geographic markets. Four core categories were targeted:

- IT Asset Disposition companies (ITADs)
- Brokers
- Intermediaries and Traders
- Service & Maintenance Companies
- Marketplaces

These actor types represent key positions in the used and refurbished IT supply chain and were selected to capture differences in communication approaches, trust-building mechanisms, and sustainability strategies. The participants were further diversified by region, with interviewees operating in or selling to France, Spain, Italy, the Netherlands, Denmark, and Germany. This geographic spread supports the exploration of regional and cultural variation in line with the thesis's fourth research question.

The sampling approach was non-random and strategic, aligning with Palinkas et al. (2015), who argue that purposive sampling is particularly appropriate when the research aims to understand phenomena influenced by contextual and experiential factors. A combination of direct outreach, industry connections, and snowballing was used to identify potential participants.

Sample size was determined by the principle of thematic saturation, the point at which new interviews no longer contribute substantial new insights (Guest, Bunce, & Johnson, 2006). In total, interviews were conducted with participants whose organizations varied in size (from SMEs to large international brokers), customer focus (B2B, B2C, or hybrid), and level of operational transparency. While the sample size remains limited, the diversity and relevance of respondents ensure a robust qualitative foundation for analysis.

### 4.4 Interview Guide Design

The interview guide was designed to generate insights relevant to the study's main research question and the four sub-questions while also reflecting the diversity of actor types in the used and refurbished IT supply chain. It consisted of a core set of general questions asked to all interviewees, followed by role-specific prompts tailored to the participant's function, whether ITAD, broker, marketplace, Service & Maintenance Companies, or intermediary.

This dual structure was chosen for two reasons:

1. Comparability across actors: The general questions ensured that all participants, regardless of role, provided input on key constructs like trust, transparency, sustainability messaging, and regional variation. These cross-cutting themes form the backbone of the thesis and are relevant to any actor engaged in the resale of refurbished IT products.

2. Depth and contextual relevance: Each actor type operates under different incentives, challenges, and customer expectations. For example, an ITAD company handles data sanitization and refurbishment processes, whereas a broker focuses on sourcing stock and optimizing margins. Asking the same detailed questions to all actors would have risked irrelevance or superficial responses. Instead, role-specific questions were added to delve deeper into the actual practices, decision-making processes, and communication strategies of each participant based on their position in the value chain.

The full list of general and role-specific interview questions is provided in Appendix 9. The following section summarizes the main areas of focus for each actor type.

**IT Asset Disposition Companies (ITADs)**

Focused on technical transparency, security, and formal processes.

These questions reflect the ITADs' central role in ensuring product quality and legal compliance, particularly in B2B sales.

**Brokers and Intermediaries**

Focused on sourcing, pricing logic, and relational trust.

Since brokers and traders operate in fast-moving B2B environments, these questions emphasized the informal and relational dimensions of trust, as well as cross-border price and quality dynamics.

**Marketplaces**

Focused on visual communication, branding, and consumer interaction.

Because these channels rely heavily on visual cues, user trust, and after-sales service, these prompts helped explore how sellers build credibility without face-to-face contact.

**Service & Maintenance Companies**

Focused on supplier evaluation, operational contribution to circularity, and communication-related bottlenecks.

These companies play a key role in extending device lifespans through reuse and repair, offering valuable insights into technical reliability, supplier trust, and documentation challenges.

### 4.5 Data Collection, Transcription & Theme Identification

All interviews were conducted between March and May 2025 using Microsoft Teams, a platform chosen for its reliable video/audio recording and transcription features. Interviews lasted between 45 and 70 minutes, and all participants provided verbal consent to be recorded. Notes were taken during each session to support later interpretation and coding. Conversations were held in English, Spanish, or Italian,

depending on the respondent's preference, and non-English interviews were translated manually by the researchers during the transcription review process.

Transcripts were auto-generated and then manually reviewed to ensure accuracy, correct industry-specific terminology, and remove any transcription errors. Minor editing was applied to improve readability and anonymize any identifying information.

The identification of themes followed a primarily deductive approach, based on the theoretical framework and research questions outlined in Chapters 2 and 3. The interview guide had been designed to explore key constructs such as trust, transparency, sustainability communication, and regional variation, already anticipating certain thematic categories. However, the analysis remained open to inductive insights. After transcription, each interview was manually coded using a combination of descriptive and interpretive codes.

The final themes were selected based on their relevance to the research questions and their recurrence across multiple interviews and actor types. Rather than relying on formal code counts, the analysis focused on identifying patterns that appeared consistently across geographies and roles, such as ITADs, brokers, marketplaces, and service providers, and that offered clear explanatory value for understanding communication dynamics in the used and refurbished IT market.

### 4.6 Ethical Considerations

Ethical integrity was a priority throughout the research process. Given that the study involved interviews with professionals operating in commercial environments, particular attention was paid to issues of confidentiality, voluntary participation, data security, and informed consent.

All participants were informed at the outset that:

- Participation was entirely voluntary
- They could decline to answer any question or withdraw from the study at any time without consequence
- Their responses would be used solely for academic purposes

- No identifiable information, such as personal names, company names, or client details, would appear in the final thesis

Prior to each interview, participants were given a short verbal briefing outlining the purpose of the study and their rights as interviewees. Although written NDAs were offered, most participants declined formal documentation, noting that the topic was not sensitive or commercially risky. Nonetheless, the researcher committed to full anonymization of transcripts, replacing any identifying references with generic role descriptions:

| **APPENDIX ref** | **Actor Type** |
|---|---|
| APPENDIX 1 | Spanish Phone Broker |
| APPENDIX 2 | French-Italian Trader |
| APPENDIX 3 | German ITAD |
| APPENDIX 4 | Multi-device Spanish Broker |
| APPENDIX 5 | Spanish ITAD |
| APPENDIX 6 | Dutch Broker |
| APPENDIX 7 | Danish Marketplace |
| APPENDIX 8 | French Service & Maintenance Company |

In sum, the research adhered to standard principles of qualitative research ethics: respect for autonomy, protection of identity, and responsible handling of sensitive or proprietary information.

## Chapter 5: Empirical Findings

This chapter presents the empirical findings derived from a series of semi-structured interviews with professionals operating in the used and refurbished IT equipment market. A total of eight interviews were conducted with representatives of IT Asset Disposition (ITAD) companies, brokers, intermediaries, service and maintenance firms, and marketplace operators across several European countries, including Spain, France, Italy, Germany, Denmark, and the Netherlands.

The analysis is organized thematically to reflect the core findings from the interviews. The themes are as follows: (5.1) Grading Inconsistency as a Structural Barrier, (5.2) Trust-Building in B2B and B2C Contexts, (5.3) Strategic Differences in Sales Channels and Messaging, (5.4) Regional and Cultural Market Adaptation, and (5.5) Lifecycle Extension: Traceability, Repair, and Compliance.

These themes were identified through a thematic coding process, as outlined in Chapter 4. While the interview guide was designed around key theoretical constructs, the analysis remained open to emergent patterns. Themes were selected based on their relevance to the research questions and their recurrence across different actor types and geographical markets. Representative quotes are included for illustration, and interviewee identities have been anonymized.

### 5.1 Grading Inconsistency as a Structural Barrier

#### 5.1.1 Lack of Standardization Across Suppliers

One of the most frequently mentioned barriers in the interviews was the inconsistency in grading systems used across the refurbished IT market. While most sellers rely on A-B-C-D cosmetic grading, there is no universally accepted definition of what each grade entails. This lack of standardization was highlighted by almost all interviewees and is considered a source of confusion, mistrust, and inefficiency.

A German ITAD noted, "For us, a Grade B laptop might have only minor scratches, while others label heavily worn or dented devices as Grade B. This inconsistency creates confusion and erodes buyer trust, especially for those of us trying to maintain high standards" (German ITAD, Appendix 3).

This view was echoed by a Spanish ITAD operating in both B2B and B2C channels, who described the absence of grading standardization as one of the sector's biggest inefficiencies. He remarked, "One supplier's Grade B might be another supplier's Grade C. This confusion leads to disputes, slows audits, and erodes trust" (Spanish ITAD, Appendix 5).

Despite some alignment on Grade A (typically considered pristine) and Grade C (associated with heavy wear or minor functional issues), Grade B remains the most problematic. Actors repeatedly emphasized that without a standardized, sector-endorsed framework, the subjective nature of grading leads to negotiation fatigue, buyer hesitation, and reputational risk.

### 5.1.2 Confusion for Buyers

This lack of standardization particularly impacts brokers and traders, who must often act quickly and rely heavily on trust. A Spanish broker working across Europe emphasized that inconsistent grading complicates supplier selection: "We prefer simple grading systems: A, B, C, or D. We don't like things like A+, B-, or A++ because this only complicates understanding and makes it harder to standardize criteria among different suppliers" (Multi-device Spanish Broker, Appendix 4).

One Dutch broker described this challenge: *"*Grading standards are not the same across suppliers." He explained that buyers often face inefficiencies due to inconsistent product descriptions, and that transparency and clear grading are key to reducing waste and manual batch verification (Dutch Broker, Appendix 6).

"The biggest problem is that there is no unified grading standard in Europe. Every supplier interprets Grade B differently. For us, Grade B means minor scratches and perfect functionality. Others sell you a Grade B laptop with broken keys or defective ports. It's a disaster" (Multi-device Spanish Broker, Appendix 4)

This variability makes it difficult for buyers to confidently assess the real value and condition of stock, often forcing them to overcompensate with sampling, extended negotiations, or reduced purchase volumes. In fast-paced B2B environments, where deals must often close in a matter of hours or days, this inefficiency can lead to missed opportunities and frustration.

In some cases, brokers develop internal workarounds such as their own grading reinterpretation models, or prioritizing long-term suppliers with consistent reporting practices. However, these personalized systems do not scale well and often fail to bridge expectations between new partners.

### 5.1.3 Impact on Trust, Time, and Audit Processes

The lack of grading consistency has a direct impact on operational speed and trust formation. Several interviewees mentioned that discrepancies between promised and actual condition force companies to spend extra time on verifications, which increases lead time and limits throughput.

One French-Italian trader observed that the reputational cost of a single batch with misaligned grading can be significant: "Trust is everything. You earn it by being consistent. A mistake once is forgivable, but twice? You’re done" (French-Italian Trader, Appendix 2).

A German ITAD noted that documentation mismatches can severely affect institutional relationships: “We sometimes lose deals to sellers that misrepresent product condition.” He explained that inconsistent grading erodes buyer trust and damages the credibility of the entire industry (German ITAD, Appendix 3).

A Spanish broker explained that they always start relationships with a small test batch to verify the accuracy of grading and technical specifications. If the batch deviates from expectations, they claim compensation or discontinue the relationship (Multi-device Spanish Broker, Appendix 4).

One Dutch broker pointed out that the audit burden caused by inconsistent documentation significantly slows down operations: “Buyers waste too much time today verifying batches manually” (Dutch Broker, Appendix 6).

### 5.1.4 Diverging Interpretations of Grade B (and Others)

Among the various grading tiers, Grade B emerged as the most ambiguous and problematic. Unlike Grade A (pristine) or Grade C (heavily worn), Grade B occupies a broad gray zone. The ambiguity leads to subjective interpretation and, in many cases, overstatement of product quality.

A Danish B2B marketplace representative explained, "One seller's 'B' might be another's 'C'. The explanation matters, so we ask for grading definitions and example photos to reduce this confusion" (Danish Marketplace COO, Appendix 7).

Interviewees revealed that Grade B devices might include anything from minor scratches to small dents or even replaced internal components. Because of this, some buyers prefer to only purchase Grade A or Grade C, avoiding Grade B altogether due to its interpretative volatility.

To mitigate risk, companies often require photographic evidence, video previews, or written clarification before committing to purchase. While these extra steps increase clarity, they also add friction to an already fragmented sales process. One phone broker explained, "We might provide random photos or even videos, especially for lower grades" (Spanish Phone Broker, Appendix 1).

### 5.1.5 Calls for European Grading Standards

There was near-universal support for the creation of a unified European grading framework. Several interviewees expressed interest in a model similar to the automotive industry, where defined categories and visual benchmarks guide both buyer and seller expectations.

A French Service & Maintenance Key Account Manager explained that lack of standardization in testing terminology is a recurring issue: "One vendor's 'tested' can mean something completely different from another's." He emphasized that technical documentation is prioritized over vague grading: "Functionality and technical documentation come first: serial numbers, firmware version, model compatibility, and ideally test logs" (French S&M Company, Appendix 8).

A Spanish broker emphasized the need for unified grading: "The biggest problem is that there is no unified grading standard in Europe. Every supplier interprets Grade B differently. [...] A common European system should be established, both for grading and for detailed Excel specifications" (Multi-device Spanish Broker, Appendix 4).

A standardized grading model could include criteria based on functionality, cosmetic wear, battery performance, and component replacement history. Multiple actors

called for sector collaboration, possibly led by EU agencies or platform consortia like Back Market or Refurbed, to co-create and enforce such standards.

There is also demand for stronger alignment between documentation and grading. Several brokers proposed that each grading tier be matched with a minimum required data set, such as serial numbers, CPU type, RAM, storage, battery health, and visible damages.

While companies currently attempt to mitigate these inconsistencies through sample batches or detailed Excel documentation, these practices are insufficient to compensate for the broader lack of clarity. As a result, the absence of standardization is not just a transactional inconvenience but a structural barrier that undermines market efficiency.

In summary, grading inconsistency is viewed as a foundational issue affecting transparency, speed, and trust across the used and refurbished IT supply chain. Whether the actor is an ITAD, broker, intermediary, or service company, the message was consistent: standardizing grading systems would enhance cross-border cooperation, reduce conflict, and improve buyer confidence.

### 5.2 Trust-Building in B2B and B2C Contexts

#### 5.2.1 Key Trust Signals: Documentation, Warranty, Photos, Track Record

Trust was repeatedly highlighted by interviewees as a decisive factor in both B2B and B2C transactions, although the signals that help build trust differ between the two environments. In the B2C space, trust is built on visible elements that reduce buyer uncertainty. Interviewees emphasized the importance of warranties, detailed product photos, consistent grading standards, verified seller status, and clear return policies. A Spanish ITAD emphasized the expectations of end consumers: “In B2C, warranty and cosmetic grading are absolutely critical. Consumers expect almost retail-like conditions and guarantees” (Spanish ITAD, Appendix 5).

The COO of a Danish B2B marketplace similarly emphasized the importance of presentation and clarity in B2C sales, noting that “consumers need structure. That’s

why platforms enforce grading explanations and publish $CO_2$ savings, it's about removing doubt from the decision" (Danish Marketplace COO, Appendix 7)

In B2B transactions, trust depends more on operational consistency than visual elements. A Spanish broker stated, "If a supplier is transparent, with good descriptions, clear grading, and photos if necessary, we can work with them even if the price is a bit higher" (Multi-device Spanish Broker, Appendix 4).Documentation and historical reliability were also key. One Dutch broker emphasized, "Just that more transparency, more standardization in grading, and better product descriptions would make the whole market more efficient. Buyers waste too much time today verifying batches manually" (Dutch Broker, Appendix 6)

A French-Italian trader emphasized that clear documentation and accurate grading are essential for repeat business: "Every unit is data-wiped and visually inspected. We run audit reports and classify units as Grade A, B, or C. [...] For me, it's a reputation issue" (French-Italian Trader, Appendix 2).

### 5.2.2 Differences in How Trust is Built in B2B vs. B2C

Interviewees consistently described a structural divide in how trust is developed in B2B versus B2C transactions. A Spanish ITAD emphasized that their company adjusts its operations depending on the channel: "In B2C, warranty and cosmetic grading are absolutely critical. Consumers expect almost retail-like conditions and guarantees. In B2B, price is more important, but transparency in grading and specs is non-negotiable" (Spanish ITAD, Appendix 5).

In B2C, sellers often rely on highly visual content and structured platform mechanisms to convey trust. One Spanish ITAD noted the complexity involved: "Selling unit by unit requires large stock levels and constant management" (Spanish ITAD, Appendix 5). A Danish marketplace COO highlighted the importance of onboarding sellers with clear documentation to build trust: "We onboard sellers with grading requirements. There's a basic A/B/C system, but everyone interprets it a bit differently. That's why we ask sellers to explain their grading criteria and include example photos. This builds trust. One seller's 'B' might be another's 'C.' The explanation matters" (Danish Marketplace COO, Appendix 7).

In B2B, by contrast, trust is built through consistent delivery, clarity in documentation, and responsiveness. As a Spanish phone broker stated, “Shops that sell to end users care more about trust and product quality. Brokers just want the best deal” (Spanish Phone Broker, Appendix 1).

A French S&M company emphasized that trust in their context revolves around operational continuity and risk management: “When we purchase components, especially to maintain existing infrastructure, we need maximum transparency and traceability. If a part fails or doesn't match the specs, it puts our client's operations and our SLA  at risk” (French S&M Company, Appendix 8).

### 5.2.3 Role of Excel Files, Test Logs, and Post-Sale Responsiveness

Interviewees across B2B roles consistently emphasized that trust is built on accurate, transparent documentation. Excel files that include detailed technical specifications, battery status, and serial numbers were seen as essential tools in reducing uncertainty and preventing disputes. As one Spanish broker stated, “If the supplier's Excel does not include clear data about the model, CPU, RAM, SSD, screen size, battery condition, and cosmetic grade, we don't buy” (Multi-device Spanish Broker, Appendix 4).

The same broker explained that document structure itself contributes to trust formation. He described a shift toward more professional formats as a competitive advantage: “The future is heading toward much more detailed Excels, including serial numbers, all technical specifications, and clear, transparent grading. This would make audits much faster, avoid claims, and save time and resources for both buyers and suppliers” (Multi-device Spanish Broker, Appendix 4).

This emphasis on precise documentation was echoed by service and maintenance companies. A French S&M company stated, “Functionality and technical documentation come first: serial numbers, firmware version, model compatibility, and ideally test logs. Cosmetic condition is less important, unless the part is customer-facing” (French S&M Company, Appendix 8).

The importance of transparency was also underlined by a Spanish ITAD, who reflected on the connection between documentation quality and operational

efficiency: “We also need to keep improving the transparency and accuracy of our documentation to minimize claims and returns. Professionalizing our processes will be key to scaling efficiently” (Spanish ITAD, Appendix 5).

While post-sale responsiveness was not often quoted explicitly, several interviewees described how poor documentation often led to disputes, delays, or buyer drop-off, especially when initial expectations set by the Excel were not met.

### 5.2.4 Importance of First-Lot Validation When Working with New Suppliers

Several interviewees highlighted that trust with new suppliers is not granted automatically but is built through the outcome of the first transactions. A Spanish broker explained that their company always begins with a small initial batch to verify whether the documentation and product condition align: “When we work with a new supplier, we always start with a small test batch, between €10,000 and €25,000. If everything matches, if the grading corresponds to reality and the specifications are correct, then we can move on to larger purchases” (Multi-device Spanish Broker, Appendix 4).

Beyond the physical state of the equipment, early interactions are also used to evaluate documentation quality and professionalism. The same broker noted that “we also pay a lot of attention to how their Excel is structured. If the information is poor, inconsistent, or unclear, we don't continue working with them” (Multi-device Spanish Broker, Appendix 4).

A German ITAD explained that inconsistent grading across suppliers often results in lost business: “This inconsistency creates confusion and erodes buyer trust, especially for those of us trying to maintain high standards. It’s frustrating, because we sometimes lose deals to sellers that misrepresent product condition. That damages the entire industry's credibility” (German ITAD, Appendix 3).

A Spanish phone broker emphasized that trust is closely tied to supplier transparency and accuracy in descriptions: “If a supplier is transparent, with good descriptions, clear grading, and photos if necessary, we can work with them even if the price is a bit higher” (Spanish Phone Broker, Appendix 1). He also noted that

recurring issues with undeclared defects typically result in refunds or discontinued partnerships.

While platforms were not always discussed explicitly in these terms, a Danish marketplace representative emphasized the importance of a strong first impression: “We teach sellers how to list their equipment properly, with grading, pictures, and explanations. Over time, buyers learn who’s reliable. The ones with polished listings and honest grading get the most attention” (Danish Marketplace COO, Appendix 7).

In sum, the first transaction is not only a test of product quality but also a broader assessment of a supplier’s professionalism, communication, and documentation. For many B2B actors, it is a crucial filter that determines whether a relationship will continue or end.

### 5.3 Strategic Differences in Sales Channels and Messaging

#### 5.3.1 Operational Contrasts between B2B and B2C Channels

Interviewees highlighted clear operational differences between B2B and B2C sales models, including expectations around volume, speed, margins, and documentation. A Spanish ITAD working across both channels described this contrast clearly: “In B2C, margins are higher but inventory turnover is slower. Selling unit by unit requires large stock levels and constant management. In B2B, sales are faster and cleaner because you move volume at once, but margins are much tighter” (Spanish ITAD, Appendix 5).

Similarly, a French-Italian trader underscored that B2B buyers rely more on trust and batch-level confidence than on individual unit inspection: “Every unit is data-wiped and visually inspected. We run audit reports and classify units as Grade A, B, or C. We also include pictures and sometimes video if there’s heavy wear. Grading is worldwide standard, but how seriously it's taken depends on the seller. For me, it’s a reputation issue” (French-Italian Trader, Appendix 2).

B2B transactions were consistently associated with high expectations around documentation efficiency and simplicity. As noted by a Spanish broker, “The future is heading toward much more detailed Excels, including serial numbers, all technical

specifications, and clear, transparent grading. This would make audits much faster, avoid claims, and save time and resources for both buyers and suppliers" (Multi-device Spanish Broker, Appendix 4).

By contrast, B2C demands more attention to unit-level presentation and consumer-facing processes. The Spanish ITAD explained that B2C listings require clear photos, battery health data, and warranties to meet buyer expectations: "For B2C sales, we provide detailed product descriptions, high-quality photos, battery health information, and warranty conditions. On the B2B side, we send detailed Excel files listing the main specifications, cosmetic grades, and notes on any visible defects" (Spanish ITAD, Appendix 5).

From a platform perspective, the COO of a Danish marketplace observed that B2C infrastructure is significantly more complex to manage: "We onboard sellers with grading requirements. There's a basic A/B/C system, but everyone interprets it a bit differently. That's why we ask sellers to explain their grading criteria and include example photos. This builds trust" (Danish Marketplace COO, Appendix 7).

Operationally, B2B is oriented toward speed and standardization, while B2C often involves more effort per transaction. The Spanish phone broker summarized it succinctly: "Shops that sell to end users care more about trust and product quality. Brokers just want the best deal" (Spanish Phone Broker, Appendix 1).

### 5.3.2 Actor Specialization or Hybrid Models

Interviewees revealed that some actors in the refurbished IT sector focus exclusively on one sales channel, while others adopt hybrid models to reach both institutional and retail buyers through differentiated processes.

A Spanish phone broker explained that their company operates almost entirely in the B2B segment: "We're almost entirely B2B. We sell to brokers, and also to shops that then sell to final customers or on marketplaces. Only 5–10% of our sales go through marketplaces. We try to keep that share as low as possible" (Spanish Phone Broker, Appendix 1). He also noted that shops targeting end consumers tend to focus more on condition and service, while B2B resellers prioritize pricing.

Meanwhile, other companies have developed distinct workflows for B2B and B2C. A Spanish ITAD explained that their firm tailors the presentation and documentation of products based on the target segment: “For B2C sales, we provide detailed product descriptions, high-quality photos, battery health information, and warranty conditions. On the B2B side, we send detailed Excel files listing the main specifications, cosmetic grades, and notes on any visible defects” (Spanish ITAD, Appendix 5).

Operational segmentation was also evident in service-oriented firms. A French S&M company explained that they adapt sourcing and documentation strategies depending on the client or region: “For some clients, we need to include full test reports and photos. For others, it’s enough to have basic traceability and part numbers. Flexibility is key” (French S&M Company, Appendix 8).

These examples suggest that while specialization offers simplicity and focus, hybrid models allow companies to diversify their revenue streams, provided that internal resources, documentation standards, and service expectations are managed separately for each channel.

### 5.3.3 Use of Green Communication: Who Uses It and Why

The use of sustainability-related communication varied notably among interviewees and appeared closely linked to target audience and commercial positioning.

The German ITAD, who often deals with public tenders and enterprise clients, explained that sustainability messaging is embedded into their documentation: “We provide data on CO2 savings, waste diversion metrics, and circular lifecycle extension. Sustainability is increasingly embedded into the procurement criteria, and we make sure our documentation and messaging reflect that” (German ITAD, Appendix 3).

However, he also noted that interest in environmental messaging depends on the client: “Public institutions and larger corporates tend to be more aware and even request ESG reporting. Smaller buyers may not be as focused on that, but they still appreciate the narrative when it’s well communicated” (German ITAD, Appendix 3).

By contrast, actors focused on B2B wholesale or brokerage were generally skeptical of green messaging. A Spanish phone broker stated bluntly: “No, we’re a very small business—just two people. We don’t have time for that kind of thing. We focus on buying, testing, and selling. Big companies with marketing departments might handle that, but not us” (Spanish Phone Broker, Appendix 1).

He further clarified that for his B2B customers, ecological value was not a meaningful factor: “That’s more of a B2C thing. In B2B, it’s strictly business. They want a good deal, and they’re not thinking about doing the planet any favors” (Spanish Phone Broker, Appendix 1).

A Danish marketplace COO explained that while they include ESG elements in their platform design, sustainability is rarely a key driver in buyer decisions: “Time savings, cost reduction, compliance, that’s what people care about. You have to lead with that. Only after they're interested do they want to hear about ESG metrics or carbon impact” (Danish Marketplace COO, Appendix 7).

The COO also acknowledged internal motivation to promote environmental values, though the market often lags behind: “Personally, yes. For me and my co-founder, it’s about making a difference. But as a market? Not yet. It’s still a buzzword for most” According to the same interviewee, clients ask primarily about availability, security, and convenience, with environmental aspects appearing later in the conversation: “Sometimes, but it's not top of mind. First, they ask if the product is available, secure, and easy to get. Then they might mention sustainability” (Danish Marketplace COO, Appendix 7)

Across these examples, it becomes clear that green messaging is strategically used, especially when addressing public or ESG-aware clients. However, in most B2B scenarios, environmental narratives tend to complement, rather than drive, the sales process.

### 5.3.4 Perceived Effectiveness of Sustainability Messaging

Interviewees expressed diverging views on the role and impact of sustainability messaging in the refurbished IT sector. While green communication is increasingly

present in public discourse, its influence on actual purchasing decisions remains context-dependent.

A Danish marketplace COO offered a critical perspective on the real impact of ESG narratives in commercial decision-making. Although he acknowledged that sustainability themes are becoming more visible in marketing, he stressed that clients rarely prioritize them: “Time savings, cost reduction, compliance. That’s what people care about. You have to lead with that. Only after they're interested do they want to hear about ESG metrics or carbon impact” (Danish Marketplace COO, Appendix 7).

He also questioned the credibility of environmental claims made by some actors in the industry, pointing out inconsistencies between branding and operations: “Some companies market themselves as sustainable, but they're flying laptops around the world to be refurbished in low-labor-cost countries. That’s not green, that’s greenwashing” (Danish Marketplace COO, Appendix 7).

In a more forceful critique, the same interviewee called for greater accountability around green marketing: “Some companies fly laptops to the UK, then to Dubai, and back again, all while marketing themselves as green. That’s just bad for the environment. If we had a third-party authority to call it out, I’d be all for it” (Danish Marketplace COO, Appendix 7).

By contrast, a German ITAD emphasized that when properly documented, sustainability communication can reinforce procurement decisions, especially in the public and corporate sectors. He explained, “We provide data on $CO_2$ savings, waste diversion metrics, and circular lifecycle extension. Sustainability is increasingly embedded into the procurement criteria, and we make sure our documentation and messaging reflect that” (German ITAD, Appendix 3).

He further noted that the effectiveness of environmental messaging depends largely on the audience: “Public institutions and larger corporations tend to be more aware and even request ESG reporting. Smaller buyers may not be as focused on that, but they still appreciate the narrative when it’s well communicated” (German ITAD, Appendix 3).

Together, these insights suggest that while green messaging is not yet a decisive factor in most B2B transactions, it is gaining ground, particularly when tied to transparency, traceability, and procurement frameworks in ESG-sensitive contexts.

### 5.4 Regional and Cultural Market Adaptation

#### 5.4.1 Differences in Expectations across Germany, Netherlands, Spain, France, Denmark, and Italy

Interviewees highlighted clear regional differences in documentation standards, buyer preferences, and grading tolerance across European markets. These differences shape both how refurbished IT products are marketed and how transactions are negotiated.

A German ITAD emphasized that buyers in Germany place strong emphasis on compliance and formal documentation, particularly when serving institutional clients: “German and Dutch customers typically value documentation and compliance highly. In Southern Europe, price sensitivity is stronger and the focus is more on basic function. Scandinavia is quite mature in terms of environmental awareness” (German ITAD, Appendix 3).

Dutch buyers were also described as particularly detail-oriented and process-driven. According to one broker, “Dutch customers tend to be very detail-oriented, they want precise information before buying” (Dutch Broker, Appendix 6).

From the perspective of Scandinavian clients, a French Service & Maintenance company noted: “In Germany, the documentation requirements are stricter. In Southern Europe, there's more flexibility but sometimes lower expectations regarding traceability” (French S&M Company, Appendix 8).

In Southern Europe, buyers were seen as more price-sensitive and flexible in grading expectations. A Spanish phone broker explained: “France and countries that resell to Africa are extremely price-focused. For them, warranty doesn’t really matter, once it leaves here, it’s done” (Spanish Phone Broker, Appendix 1).

A Spanish ITAD reinforced this contrast, explaining: “North European brokers are stricter about documentation and grading standards. Southern European buyers tend

to focus more on price and are slightly more flexible on cosmetic details" (Spanish ITAD, Appendix 5).

This was confirmed by another Spanish broker working across multiple countries: "In Germany, for example, some suppliers have very strict grading schemes. In France or Italy, sometimes they are looser" (Multi-device Spanish Broker, Appendix 4). He also pointed out that the quality of documentation varies widely: "Some send you serial numbers, battery percentage, scratch descriptions, while others simply 'used laptop, good condition,' which is useless for us" (Multi-device Spanish Broker, Appendix 4).

These insights confirm that sellers must adapt not only product grading and documentation but also pricing and communication strategies to meet the expectations of different regional buyers. Cultural fluency in negotiation and presentation norms is key to effective cross-border operations.

### 5.4.2 Documentation Levels and Transparency Norms

As already highlighted in the previous subchapter, documentation expectations differ sharply across European regions and are deeply shaped by cultural and institutional norms. Buyers in Northern Europe, particularly in Germany, the Netherlands, and Denmark, were consistently described as expecting more structured, traceable, and compliant documentation, especially in B2B and public sector contexts.

A German ITAD had previously emphasized that "German and Dutch customers typically value documentation and compliance highly," particularly when working with institutional buyers (German ITAD, Appendix 3). This was echoed by a French Service & Maintenance company, who noted that "in Germany, the documentation requirements are stricter. In Southern Europe, there's more flexibility but sometimes lower expectations regarding traceability" (French S&M Company, Appendix 8).

Interviewees also described how the actual structure and depth of documentation can influence trust and repeat business. A Spanish broker explained the importance of Excel format and completeness: "We request a test batch. Then we check that the actual condition of the products matches what was promised in the documentation. We also pay a lot of attention to how their Excel is structured. If the information is

poor, inconsistent, or unclear, we don't continue working with them" (Multi-device Spanish Broker, Appendix 4).

He further illustrated the inconsistency across suppliers and countries: "The quality of Excels also varies greatly. Some send you serial numbers, battery percentage, scratch descriptions, while others simply 'used laptop, good condition,' which is useless for us" (Multi-device Spanish Broker, Appendix 4).

From a service and maintenance perspective, transparency is equally critical. A French S&M company stated, "Functionality and technical documentation come first: serial numbers, firmware version, model compatibility, and ideally test logs. Cosmetic condition is less important, unless the part is customer-facing. Unfortunately, there's little standardization, which causes problems" (French S&M Company, Appendix 8).

These testimonials underline that documentation is not just a technical requirement but a cultural one. In Northern Europe, it reflects professionalism and trust. In Southern markets, while relationships may compensate for missing formalities, insufficient documentation often limits scalability and cross-border potential. Harmonizing documentation protocols may therefore be key to improving operational efficiency and mutual trust across the European refurbished IT sector.

### 5.4.3 Keyboard Layouts and Market-Specific Constraints

Beyond pricing and documentation, regional compatibility issues, especially keyboard layouts, were mentioned by several interviewees as practical barriers to cross-border transactions. Even when devices meet the technical and cosmetic requirements of a buyer, a mismatched keyboard can reduce perceived value or make resale impossible.

A Dutch broker explained that layout mismatches regularly complicate sourcing and resale decisions: "For laptops, it's extremely important they have international English keyboards. We generally avoid buying lots with non-English layouts. Maybe, if it's German keyboards and the price is extremely competitive, we consider it. But repainting keyboards is a big hassle and not worth it most of the time" (Dutch Broker, Appendix 6).

This challenge is particularly evident in regions like Scandinavia, where layouts are specific and difficult to adapt. The COO of a Danish B2B marketplace described how they approach this issue strategically: “In Denmark or Sweden, laptops come with Scandinavian keyboard layouts. So when we build an ecosystem around that, we find buyers in those countries to avoid the cost and hassle of keyboard replacement. A buyer in Spain or France would have to pay extra to adapt it, so it's more efficient to match sellers and buyers within the same layout region” (Danish Marketplace COO, Appendix 7).

These layout-specific expectations often lead brokers and marketplaces to segment their stock or limit cross-border listings. According to interviewees, repainting keyboards or swapping keycaps is technically possible, but only justifiable at scale.

Overall, interviewees agreed that keyboard configuration is more than a detail, it is a recurring constraint that must be accounted for in regional strategy. Inventory planning and buyer targeting often require a keyboard-aware approach, especially in countries with low tolerance for mismatched layouts.

### 5.4.4 Cultural Influence on Price Negotiation and Grading Tolerance

Cultural expectations shape how buyers across Europe approach pricing and grading tolerance, and many sellers have learned to adapt their communication accordingly. These differences are particularly evident when comparing Northern and Southern European markets, as highlighted by multiple interviewees.

As discussed previously in section 5.4.1, one Spanish broker emphasized that the lack of a unified grading standard is especially problematic when operating across borders: “The biggest problem is that there is no unified grading standard in Europe. Every supplier interprets Grade B differently. For us, Grade B means minor scratches and perfect functionality. Others sell you a Grade B laptop with broken keys or defective ports. It's a disaster” (Multi-device Spanish Broker, Appendix 4).This variability leads to mismatched expectations and often requires clarification or renegotiation.

Price sensitivity is another cultural trait that appears to differ across regions. As noted earlier in section 5.4.1 and 5.4.2, a Spanish phone broker explained that

buyers in France are highly price-driven and less concerned with after-sale support: “France and countries that resell to Africa are extremely price-focused. For them, warranty doesn’t really matter, once it leaves here, it’s done” (Spanish Phone Broker, Appendix 1). While this quote was previously cited to illustrate warranty perceptions, it also reflects broader regional tendencies toward aggressive pricing expectations and limited post-sale engagement.

The same pragmatic approach was described by a Spanish broker when discussing supplier evaluations: “If the supplier's Excel does not include clear data about the model, CPU, RAM, SSD, screen size, battery condition, and cosmetic grade, we don't buy.” However, he also noted that flexibility increases when the price is attractive and the supplier has proven reliable: “We always start with a small test batch, between €10,000 and €25,000. If everything matches [...] then we can move on to larger purchases.” (Multi-device Spanish Broker, Appendix 4).

In contrast, Northern European buyers were consistently described as more documentation-oriented and less open to ambiguity. A Dutch broker highlighted this difference: “Dutch customers tend to be very detail-oriented, they want precise information before buying” (Dutch Broker, Appendix 6). This aligns with the view of a German ITAD who noted: “German and Dutch customers typically value documentation and compliance highly. In Southern Europe, price sensitivity is stronger and the focus is more on basic function” (German ITAD, Appendix 3).

In summary, while Southern European buyers may be more inclined to accept cosmetic variability in exchange for lower prices or faster turnaround, Northern markets demand consistency, technical precision, and a narrow tolerance for ambiguity. Sellers operating across regions must therefore adjust their pricing, communication, and documentation strategies to match culturally embedded expectations and trust signals.

### 5.5 Lifecycle Extension: Traceability, Repair, and Compliance

#### 5.5.1 The Role of ITADs and Brokers in Resale and Refurbishment

Interviews consistently highlighted the central role that IT Asset Disposition (ITAD) companies and brokers play in extending the lifecycle of IT equipment. ITADs are

often the first link in the reuse chain, acting as professional gatekeepers responsible for sorting, diagnosing, and preparing used equipment for resale. Their decisions largely determine whether a device is redeployed, repaired, or dismantled for parts.

A German ITAD explained: “We work with corporate and public sector clients to manage end-of-life equipment: we take care of secure logistics, certified data wiping, testing, refurbishing, and either redeployment or resale of the devices through various B2B and institutional channels” (German ITAD, Appendix 3). These firms are not only logistics and compliance experts, but also serve as quality control agents whose documentation practices are critical to maintaining trust along the supply chain.

Sourcing practices are critical in ensuring that devices have a viable second life. For many brokers, the origin of the equipment strongly influences purchase decisions. One Dutch broker emphasized: “First, the origin: we prefer buying directly from ITADs. If it’s a broker, we are more cautious and usually only buy if they have a good track record” (Dutch Broker, Appendix 6). This illustrates how trust in the supplier, not just the condition of the hardware, plays a decisive role in whether a batch is accepted into the resale channel.

While some ITADs focus solely on redistribution, others are increasingly engaging in refurbishment processes internally. A Spanish ITAD described how their operations combine resale and in-house reconditioning: “After securely wiping all data, we either resell the best-grade products individually through marketplaces like Back Market and Refurbed, or we sell batches containing a mix of grades to brokers and traders” (Spanish ITAD, Appendix 5). He added that grading accuracy is essential in B2B sales: “Any mismatch leads to disputes, claims, and time loss, which we work hard to avoid.”

Brokers, in turn, act as key intermediaries that identify resale opportunities, consolidate supply from various sources, and move equipment across markets. Their flexibility and knowledge of regional demand make them critical to the commercial success of refurbishment cycles. As one French-Italian trader put it: “I lease equipment to end users […] After the lease, I retrieve the equipment, ensure data wiping is properly done, audit it, and then decide whether to sell it directly, send it to

a refurbisher, or break it down for parts" (French-Italian Trader, Appendix 2. His description illustrates how brokers often operate across multiple lifecycle stages, from leasing and asset recovery to redistribution and recycling.

Across all actors, one common theme stood out: resale is not just about moving stock, but about managing condition, grading consistency, and downstream usability. ITADs and brokers investing in internal diagnostics, documentation, and relationship-building are more likely to ensure that devices achieve a second life, directly with end users or through further refurbishment.

### 5.5.2 Service & Maintenance Companies: Circularity under Operational Pressure

Service and Maintenance (S&M) companies play a unique but critical role in extending the lifecycle of IT equipment. Unlike brokers or marketplaces, these firms do not buy to resell. Instead, they purchase second-hand components to maintain existing infrastructures under long-term contracts, often with enterprise and institutional clients. Their operations are a prime example of reactive circularity, extending functionality by replacing parts rather than entire systems.

A French S&M company described their role as follows: "We are a service and maintenance company that manages long-term IT infrastructure contracts for large corporate clients. [...] This includes break/fix services, preventive maintenance, upgrades, and end-of-life asset handling" (French S&M Company, Appendix 8). In this context, urgency, reliability, and technical compatibility take precedence over cosmetic condition or price.

This operational environment is defined by strict Service Level Agreements (SLAs), which require rapid response times and minimal disruption. As previously mentioned, the same interviewee stressed that "functionality and technical documentation come first: serial numbers, firmware version, model compatibility, and ideally test logs. Cosmetic condition is less important, unless the part is customer-facing" (French S&M Company, Appendix 8). Such precision is especially important when supporting legacy systems that require components no longer in production.

Sourcing decisions are heavily influenced by availability and trust. When asked about supplier selection, the interviewee cited three essential factors: “Availability, can they deliver fast? Technical confidence, is the part tested and documented? Trust, are they responsive and consistent in their labeling?” (French S&M Company, Appendix 8). This stands in stark contrast to brokers, who often prioritize price or margin potential.

From a sustainability perspective, these companies contribute to circularity not through resale, but through lifecycle extension. As noted earlier, the interviewee stated: “We help [clients] meet sustainability targets by extending device lifespans and reducing e-waste. [...] Our work makes the loop real” (French S&M Company, Appendix 8). By replacing individual components and avoiding full system replacements, they help reduce environmental impact while also supporting their clients' CSR goals.

Ultimately, Service & Maintenance companies illustrate how second-hand IT equipment can be leveraged beyond resale channels. Their operations show that true circularity also depends on speed, precision, and integration into performance-based contracts, where used parts are not just reused, but relied upon.

### 5.5.3 Challenges in Traceability, Documentation, and Reactive Procurement

While brokers and service firms are key enablers of circularity, their operations are often hindered by gaps in traceability and inconsistent documentation. This issue becomes particularly critical in scenarios of reactive procurement, where parts are needed urgently to restore functionality under service contracts.

A German ITAD commented on the widespread inconsistencies in grading across Europe, noting that even basic categories like “Grade B” are interpreted differently by suppliers. Although originally referring to full devices, the same problem applies to individual components, where standardized references are largely absent and trust must fill the gap (German ITAD, Appendix 3).

From the broker perspective, vague or incomplete product data from suppliers often requires extra time and internal testing. One Spanish broker highlighted the variability in how suppliers describe their stock, pointing out that some offer detailed

specifications while others provide little more than generic labels (Multi-device Spanish Broker, Appendix 4). This makes it difficult to react quickly when urgent repairs are required, especially in enterprise settings.

In time-sensitive environments, incomplete documentation can render an otherwise suitable part useless. A French service provider explained that delays and returns are frequently caused by mismatched expectations, often the result of unclear or incomplete product descriptions (French S&M Company, Appendix 8). When speed matters, access to accurate and consistent information is as essential as the hardware itself.

### 5.5.4 The Need for Part-Level Grading and Documentation Protocols

Across interviews, several participants raised concerns about the absence of standardized grading and documentation at the component level. This issue was mentioned multiple times throughout the conversations, especially by brokers and service-oriented firms, who emphasized that terms like “tested” or “refurbished” are often interpreted inconsistently depending on the supplier. Without a shared framework, part-level transactions remain difficult to scale, relying heavily on trust and manual verification.

While such concerns were echoed by various actors, one particularly clear example came from a German ITAD, who stated: “If the industry could agree on common quality levels and reporting formats, that would build trust across the board” (German ITAD, Appendix 3). His comment, although originally aimed at full devices, underscores a broader structural need: buyers cannot make informed decisions if technical quality, test procedures, or defect definitions are not clearly communicated.

Efforts to address this challenge have emerged in isolated cases. Some brokers create their own internal classifications or templates, while others refuse to work with suppliers who cannot meet specific data or grading requirements. Yet this patchwork approach leads to friction. As one interviewee explained earlier in the study, discrepancies in how components are described and certified often result in delays, returns, or lost deals.

If part-level circularity is to become a scalable practice, whether for servers, laptops, or networking hardware, there must be sector-wide alignment on how components are evaluated and communicated. This means not only defining what constitutes an “A-grade” power supply or motherboard, but also standardizing the way that information is recorded and transferred between actors. Without such protocols, the reliability of second-hand components will continue to depend more on personal networks than on professional standards.

## Chapter 6: Discussion

This chapter critically interprets the empirical findings presented in Chapter 5 through the lens of the theoretical frameworks introduced in Chapter 3 and the literature reviewed in Chapter 2. The goal is not just to summarize the findings, but to make sense of them in relation to the existing theories and literature. This chapter discusses how companies in the used and refurbished IT sector actually build trust and communicate sustainability, and whether those real-world practices confirm, question, or go beyond what the academic frameworks suggest.

The chapter is structured into three main sections. Section 6.1 links the empirical results to the literature and conceptual frameworks that underpin this study. Section 6.2 provides a direct answer to the research question and its four sub-questions, highlighting how communication strategies differ by actor type, buyer segment, and regional context. Finally, Section 6.3 reflects on unexpected or underexplored insights that emerged during the interviews, offering new perspectives on the structural challenges and strategic trade-offs faced by sellers in the used and refurbished IT market.

### 6.1 Linking Empirical Findings to Literature

The empirical findings of this study both confirm and challenge established literature on communication strategy, trust formation, and sustainability messaging in the used and refurbished IT market. By engaging directly with industry actors, the research provides a grounded interpretation of how trust and environmental value are communicated across real-world market settings. The four theoretical lenses introduced in Chapter 3, Trust Theory, Signaling Theory, Green Marketing Theory, and the Theory of Planned Behavior, serve as the primary reference points for interpreting these dynamics.

Trust Theory, which defines trust as a function of competence, integrity, and goodwill (Mayer et al., 1995), is strongly supported by the interviews. Across both B2B and B2C contexts, trust was repeatedly linked to clear documentation, consistent grading, and transparent communication. These findings reflect earlier studies (e.g., Gefen et al., 2003), which highlight the role of visible signals in reducing buyer uncertainty. However, this study also builds on the existing literature by emphasizing

the critical importance of relational trust in B2B. Sellers noted that long-term client relationships, built through repeat interactions, accurate documentation, and dependable delivery, often carried more weight than formal guarantees or marketing messages.

Signaling Theory (Spence, 1973) is also validated. Grading systems, certifications, and warranties are widely used as tools to reduce information asymmetry. However, this research shows that the effectiveness of these signals is frequently undermined by inconsistent definitions and lack of standardization. For example, the meaning of "Grade B" varied significantly across sellers, which reduced its credibility and utility, particularly in cross-border transactions (Multi-device Spanish Broker, Appendix 4; Spanish ITAD, Appendix 5). This supports James (2024) observation that signals must be not only visible but also mutually understood to be effective.

Green Marketing Theory, as framed by Peattie and Crane (2005), points out that credible environmental messaging can enhance product appeal and brand differentiation. The interviews showed this is highly context-dependent. In B2C, particularly via platforms like Back Market and Refurbed, sustainability messaging is used to justify pricing and engage eco-conscious consumers (Spanish ITAD, Appendix 5; Dutch Broker, Appendix 6). In B2B, however, sellers consistently described green messaging as irrelevant, unless explicitly required by ESG policies or public procurement frameworks (Spanish Phone Broker, Appendix 1; Danish Marketplace, Appendix 7). This supports recent calls in the literature to recognize the limits of sustainability narratives in price and volume driven markets.

The Theory of Planned Behavior (Ajzen, 1991) provides further insight, particularly when reinterpreted from a seller's perspective. While many participants acknowledged the ecological benefits of refurbishment and used IT products, their actual communication practices were shaped by perceived buyer priorities, namely, price, speed, and reliability (Spanish Phone Broker, Appendix 1; Danish Marketplace, Appendix 7). This reflects the well-documented “intention-behavior gap” (Nguyen et al., 2019), and suggests that even when sustainability is valued in theory, it is often subordinated to more immediate operational concerns in both messaging and strategy (French-italian Trader, Appendix 2).

In sum, this research confirms the relevance of existing theories while revealing how they operate under real-world constraints. Communication strategies in the used and refurbished IT market are not fixed or uniform, they are adapted based on actor type, transaction context, buyer expectations, and resource availability. Sellers often blend formal trust-building mechanisms with informal practices, using sustainability selectively and pragmatically. These findings show that trust and sustainability are not just theoretical goals, but practical decisions that sellers adapt to their business context, customer needs, and operational constraints.

### 6.2 Addressing the Research Questions

This part of the chapter focuses on how the findings directly address the main research question and the four sub-questions that guided the study:

**“How do used and refurbished IT sellers communicate trust and sustainability across B2B and B2C channels in the European market?”**

Across the dataset, it is clear that trust is primarily built through documentation, transparency, and consistency, though the form and emphasis of these elements vary by segment. In B2C, communication is visual and reassurance-driven, relying on photos, grading, return policies, and sustainability narratives to signal product reliability and ecological value (Spanish ITAD, Appendix 5; Dutch Broker, Appendix 6). In contrast, B2B communication emphasizes technical documentation, long-term relationships, and operational trust, with little to no emphasis on sustainability (Spanish Phone Broker, Appendix 1; Danish Marketplace, Appendix 7). Sellers adapt their strategies not only by buyer type but also based on platform rules, internal capacity, and perceived market expectations. These findings reveal that trust and sustainability are not communicated uniformly, but rather strategically, shaped by audience, context, and institutional constraints.

To explore this in more depth, the four sub-questions are discussed individually below, drawing on the empirical evidence gathered during the study.

**RQ1: What trust-building mechanisms, such as grading, warranty, and transparency, are used by sellers, and how are these communicated?**

The interviews confirmed that grading systems, warranty policies, and detailed documentation are foundational trust mechanisms across the industry. In B2C contexts, sellers emphasized the importance of clear grading labels, photos, battery data, and return policies, especially when operating on platforms like Back Market. For instance, the Spanish ITAD highlighted how detailed visual information and warranty terms are crucial for gaining consumer trust (Spanish ITAD, Appendix 5).

In B2B, sellers described trust as being driven more by technical transparency and relational reliability. The German ITAD emphasized the value of standardized grading, test logs, and audit reports, particularly for institutional clients that rely on procurement frameworks (German ITAD, Appendix 3). Likewise, the Multive-device Spanish broker stressed that a well-structured Excel file with exact specifications and grading definitions often determines whether a supplier is considered trustworthy. However, many respondents flagged the lack of unified grading standards in Europe as a persistent barrier to trust, what one called “a disaster” when it comes to cross-border transactions (Multi-device Spanish Broker, Appendix 4).

**RQ2: How do communication strategies differ between B2B and B2C channels, particularly regarding the framing of trust and sustainability?**

The data reveal clear differences. In B2C, visual presentation, branding, and eco-labels are central. Sellers include high-quality photos, warranty labels, and environmental impact metrics to frame the product as both reliable and responsible. As noted by the Spanish ITAD, B2C buyers expect retail-like presentation and reassurance, which is reflected in the company’s communication on Refurbed and similar platforms (Spanish ITAD, Appendix 5).

In contrast, B2B communication is more functional and data-oriented. The French-Italian trader emphasized the importance of audit reports, secure logistics, and traceability, particularly in processes like leasing returns and resale decisions (French-italian Trader, Appendix 2). Brokers and intermediaries across several markets described how they adapt their messages depending on whether they are dealing with end-user retailers or wholesale traders. For instance, the Danish marketplace explained that for B2B, sustainability is discussed only after logistical, price, and compliance concerns have been addressed (Danish Marketplace, Appendix 7).

**RQ3: How is sustainability framed in communication strategies, and what role does it play in B2B versus B2C transactions?**

Sustainability messaging was widely seen as strategic and selective, not universal. It is prominently used in B2C sales, where consumers expect eco-justifications and branding. The Spanish ITAD shared that they promote messages around e-waste reduction and circularity to justify slightly higher prices and position themselves competitively (Spanish ITAD, Appendix 5). Similarly, the Dutch broker emphasized using narratives like “second life” to align with platform expectations (Dutch Broker, Appendix 6).

By contrast, sustainability was often downplayed in B2B. Several actors, including the Multi-device Spanish broker and the Danish marketplace, explained that their buyers are driven primarily by price, batch quality, and documentation, not environmental claims (Multi-device Spanish Broker, Appendix 4; Danish Marketplace, Appendix 7). The Spanish phone broker put it bluntly: “In B2B, it’s strictly business. They want a good deal, and they’re not thinking about doing the planet any favors.” (Spanish Phone Broker, Appendix 1).

**RQ4: How do internal constraints and platform dynamics influence the way sellers communicate trust and sustainability?**

Many sellers, particularly smaller companies, cited resource constraints as limiting their ability to invest in communication. The Spanish phone broker noted that their two-person operation leaves little time for storytelling or green messaging; instead, their focus is on buying, testing, and selling (Spanish Phone Broker, Appendix 1). Platform dynamics also play a role, on marketplaces like Back Market, formatting rules often emphasize visual cues and green labels, but restrict the ability to share deeper technical or compliance details (Spanish ITAD, Appendix 5).

One interviewee suggested that fear of being accused of greenwashing may limit how actively some sellers promote their sustainability practices. The Danish Marketplace explained that only a neutral third-party authority could credibly validate environmental claims, comparing it to food safety ratings in restaurants (Danish Marketplace, Appendix 7). Meanwhile, inconsistency in grading and terminology forces sellers to repeatedly explain their definitions, especially when operating

across different European markets where expectations and standards vary (German ITAD, Appendix 3; Multi-device Spanish Broker, Appendix 4).

### 6.3 Reflections on Unexpected Insights

While this study was structured around a main research question and four sub-questions, the interviews also revealed a number of unexpected but valuable insights. These reflections highlight practical challenges and overlooked dynamics that go beyond what the original research design anticipated.

One of the most consisten findings was the near absence of sustainability messaging in B2B communication, even among actors operating in sectors where environmental awareness is growing. While Green Marketing Theory often assumes that sustainability is becoming a competitive advantage (Peattie & Crane, 2005), many respondents across different roles described green messaging as irrelevant in B2B transactions, unless explicitly required for public tenders or institutional clients. Some interviewees stated clearly that their customers were uninterested in environmental claims and focused solely on price, margins, and logistics. This suggests that environmental communication is not a default strategic priority, but rather a selective tool used only when the audience is perceived to care (Spanish Phone Broker, Appendix 1; Multi-device Spanish Broker, Appendix 4; Danish Marketplace, Appendix 7). The gap between growing regulatory momentum and actual sales communication reveals a disconnect between external sustainability expectations and internal commercial realities.

Another insight emerged in relation to regional resale patterns, particularly for equipment destined for secondary markets in Africa. In these cases, interviewees explained that warranty, documentation, and cosmetic grading often lose all relevance once the goods leave Europe (Spanish Phone Broker, Appendix 1; Multi-device Spanish Broker, Appendix 4). This suggests that resale geography can reduce the relevance of trust-building strategies commonly discussed in the literature (James et al., 2024). When price becomes the only meaningful signal, the role of trust is replaced by volume dynamics and informal credibility between the different actors of the used and refurbished IT sector. This dynamic challenges the

universality of trust-building models and suggests that some markets operate beyond the boundaries of standard trust-signal logic.

The interviews also revealed that logistics, data wiping, and leasing loops play a far more central role in enabling circularity than most of the existing literature acknowledges. In particular, leasing and rental firms were described as essential in shaping product availability and return flows (French-Italian Trader, Appendix 2). Some of the interviewees emphasized the importance of logistics and inventory control in preserving product value, ensuring timely resale, and matching supply with demand (French-Italian Trader, Appendix 2; Danish Marketplace, Appendix 7). Others stressed the relevance of certified data wiping and asset documentation, especially for institutional clients (German ITAD, Appendix 3). Despite their importance, these operational elements are rarely highlighted in research focused on communication within circular IT markets. Academic and industry discussions often prioritize branding, messaging, or consumer behavior, while paying little attention to the behind-the-scenes systems that actually enable circularity to work at scale.

Finally, the emergence of service and maintenance companies as key circular actors deserves special attention. These firms, which buy second-hand parts to maintain enterprise IT infrastructure under long-term contracts, are typically excluded from mainstream discussions of the used and refurbished IT market. One such company described their role in what could be called reactive circularity, extending product lifecycles without resale, as essential to real-world lifecycle management (French Service & Maintenance Company, Appendix 8). This type of circularity aligns with recent literature that expands the definition of circular practices beyond resale to include maintenance and operational continuity (Lopez & Legardeur, 2024). Unlike brokers or marketplaces, these actors prioritize test data, delivery speed, and compatibility over cosmetic condition or green branding. Including them in the supply chain narrative highlights the functional depth of circularity in enterprise IT environments.

Overall, the interviews reveal that communication strategies in the circular IT market are shaped by much more than trust-building or sustainability narratives. They are influenced by how and where products are resold, the logistical capabilities behind each transaction, the specific role of each actor in the supply chain, and whether

certain signals, like grading or warranty, are actually relevant in a given context. These findings show that to fully understand circularity in the IT sector, we need to look beyond just marketing or consumer behavior. It is important to consider the whole system, including logistics, resale patterns, and the different roles companies play, both in research and in industry practice. Circular economy theory, in turn, should expand to better reflect the real-world conditions and actors that shape how circularity works on the ground.

## Chapter 7: Conclusion

This final part of the thesis draws together the most important insights and considers their broader implications. Rather than revisiting empirical details, the focus is on interpreting the results in light of the research objectives and theoretical foundations. The sections that follow outline the study's contributions to both academic literature and industry practice, address its main limitations, and propose directions for future research. In doing so, the chapter aims to consolidate the relevance and scope of the work as a whole.

### 7.1 Recap of Main Findings

This thesis explored how sellers of used and refurbished IT equipment communicate trust and sustainability across B2B and B2C channels in the European market. Unlike previous studies that predominantly focus on consumer attitudes, this research adopted a supply-side perspective, drawing on qualitative interviews with different actors such as ITADs, brokers, traders, market places and Service companies across six European countries.

The findings show that communication practices are deeply shaped by market context. While B2C channels emphasize visual presentation, user-friendly messaging, and green storytelling, B2B environments prioritize technical transparency, logistical efficiency, and pricing clarity. In many B2B settings, trust is reinforced not only through formal signals, but also through repeated transactions and long-term relationships, especially when working with familiar partners. Across both segments, grading systems, warranty terms, and documentation serve as essential trust signals, though their perceived value varies depending on the buyer, channel, and region.

Sustainability, though widely promoted in B2C platforms, remains a secondary or optional message in B2B sales, where buyers are often guided by procurement routines or cost-saving priorities. Moreover, sellers face constraints such as limited staffing, platform-imposed communication formats, and the risk of being accused of greenwashing, which inhibit the consistent and credible promotion of environmental benefits.

A recurring issue across interviews was the lack of a unified grading standard, which undermines both trust and efficiency, particularly in cross-border transactions. Sellers repeatedly expressed frustration with the subjective use of terms like "Grade B," which can vary significantly between actors and across markets, eroding trust and complicating negotiations.

Overall, this study shows that communication strategies in the circular IT market are not guided by ideal models or standard marketing formulas. Instead, they are shaped by practical realities, such as buyer expectations, platform restrictions, and limited internal resources. Trust and sustainability are not communicated in the same way by all actors, but are used selectively depending on the context and what is realistically achievable.

### 7.2 Answers to Research Questions

This section provides direct answers to the main research question: How are communication strategies used to build trust and promote circularity in the used and refurbished IT market? The results show that these strategies differ depending on buyer type, sales channel, and organizational conditions. Sellers do not apply fixed models but instead adapt their communication to what each situation demands, balancing audience expectations with platform structures, market dynamics, and internal capabilities. Each sub-question is addressed below to consolidate the main empirical insights.

**RQ1: What trust-building mechanisms are used by sellers in the used and refurbished IT market, and how do they vary by actor type?**

Trust-building tools such as grading systems, warranties, and technical documentation play a central role, but their impact depends on consistency and on the expectations of the buyer. The lack of standard grading definitions across actors and regions remains a key barrier, especially in cross-border transactions. While marketplaces emphasize visual trust and buyer protection, brokers and ITADs rely more heavily on detailed specifications and audit reports to establish credibility.

**RQ2: How do communication strategies differ between B2B and B2C sales contexts?**

Communication strategies vary clearly between B2B and B2C. In B2C, sellers rely on visual elements, eco-framing, and alignment with platform messaging to appeal to individual consumers. In B2B, the focus shifts toward documentation, logistics, and meeting procurement or compliance requirements. Trust is often built over time through repeated transactions and clear technical documentation, rather than through visual presentation or green messaging. Sustainability is rarely a leading message in B2B unless buyers explicitly request it.

**RQ3: When and how is sustainability communicated as part of the sales process?**

Sustainability messaging is applied selectively. It is more prominent in B2C, where it helps differentiate products and justify pricing. In B2B, it is often omitted unless environmental criteria are formally required, such as in public tenders or contracts with large institutions. Some sellers also avoid emphasizing sustainability due to the perceived risk of being accused of greenwashing.

**RQ4: What internal and external constraints shape how companies communicate trust and sustainability?**

Several factors influence how communication is approached in practice. Internally, limited staff, time pressure, and lack of marketing resources affect what can be communicated and how consistently. Externally, platform structures, rigid formatting rules, and concerns about greenwashing restrict the space available to explain environmental practices. These constraints make it difficult for some actors to maintain credibility or tailor messaging to each buyer.

These findings confirm that sellers adapt their communication strategies not only to their target audience but also to the practical limitations and commercial pressures they face in daily operations.

### 7.3 Managerial Implications

The findings of this study offer several practical insights for used and refurbished IT sellers, platforms, and policymakers seeking to strengthen trust and promote sustainability in the circular economy.

**Standardize grading systems to reduce friction and build trust.**

The absence of a shared grading standard emerged as one of the most persistent and widely criticized issues in this study. Across nearly all interviews, regardless of actor type or market focus, participants expressed frustration with the inconsistent use of terms like "Grade B" and the confusion it causes for buyers. This lack of alignment not only erodes trust but also creates friction in negotiations, especially in international transactions. Establishing a unified, industry-wide grading framework, supported by clear visual benchmarks and definitions, would significantly strengthen credibility, reduce misunderstandings, and enhance operational efficiency across the sector. It is one of the clearest opportunities for collective improvement identified in this research.

**Tailor communication by market segment: B2B versus B2C.**

Sellers must recognize the fundamentally different expectations across B2B and B2C channels. B2B clients prioritize reliable documentation, batch testing, and pricing transparency, and expect communication to support long-term, trust-based relationships. In contrast, B2C buyers respond more strongly to product presentation, warranty visibility, and environmental messaging. Applying the same communication approach across both segments can reduce effectiveness and undermine credibility with the target audience.

**Use sustainability messaging strategically, but avoid overdependence.**

Green narratives are effective in B2C, especially when they include quantifiable data (e.g., CO2 savings, reuse metrics). However, these claims should be backed by transparent processes or third-party certifications to avoid credibility issues. In B2B, green claims should be used selectively and aligned with procurement language when relevant (e.g., for public tenders or ESG-focused buyers).

**Invest in operational transparency through documentation.**

Across all buyer types, high-quality documentation, Excel-based listings, grading explanations, battery reports, photos, and audit logs, helps build buyer trust and reduce post-sale friction. This is especially valuable for newer sellers without a long-standing reputation. The presentation of such materials can be as important as the data itself.

**Collaborate with platforms to improve seller communication capabilities.** Marketplace constraints (e.g., fixed templates, character limits) often limit sellers' ability to differentiate themselves or provide deeper transparency. Sellers and platforms could work together to expand seller profiles, grading definitions, and certifications to improve communication, transparency and reduce buyer uncertainty.

These recommendations highlight that trust and sustainability should not be treated as optional marketing tactics, but as integral parts of daily operations and communication with buyers.

### 7.4 Limitations and Final Reflections

As with any qualitative study, there are some limitations that shape how the findings should be interpreted and applied. While the aim was to generate in-depth, actor-specific insights into how trust and sustainability are communicated by used and refurbished IT sellers, a number of constraints should be acknowledged.

First, the sample size was limited to eight interviews. Although participants were carefully selected to reflect diversity in actor type (ITADs, brokers, traders, service companies, and marketplace actors) and geographic spread (France, Germany, Spain, Italy, Denmark, and the Netherlands), the dataset remains relatively small and purposively constructed. Thematic saturation was achieved, but broader representation, particularly from underexplored regions such as Eastern Europe, could have added more depth to the analysis, especially in relation to regional compliance practices or buyer expectations.

Second, the study exclusively focused on supply-side actors. While this was intentional and consistent with the research objective, it inevitably leaves out the perspectives of end-users or institutional clients, who ultimately shape demand-side trust dynamics. Including institutional clients or end-users would have enabled a more complete understanding of how communication is received, interpreted, and acted upon in practice.

Third, the study relies on what sellers said about their communication strategies, rather than observing how they actually interact with clients in real settings. While participants described their approaches in detail, it was not possible to verify how

these strategies are applied in practice. For example, a seller may believe they communicate transparently, but the buyer might perceive it differently. Future research could strengthen these findings by analyzing real sales materials, observing buyer-seller interactions, or testing different messages in controlled settings.

Fourth, the timing of the study is relevant. The research was conducted in spring 2025, during a period of regulatory change in the EU's circular economy agenda. As initiatives such as the Digital Product Passport, updated eco-design requirements, and right-to-repair regulations continue to develop, the commercial role of grading, certification, and sustainability messaging may shift. The findings presented here reflect the current state of the market, but may not fully capture how these policies will influence communication practices in the years ahead.

While this study has its limitations, it offers a practical and honest look at how used and refurbished IT equipment sellers deal with the challenges of communicating trust and sustainability. It shows how these strategies are shaped by the realities of different markets, buyer expectations, and ongoing regulatory change. Hopefully, the findings can support both future research and everyday decisions in a sector that plays an increasingly important role in making the IT economy more circular.

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## Appendix

### Appendix 1 - Interview with Spanish Phone Broker

Date: April 11, 2025
Location: Online meeting via Microsoft Teams
Duration: 31 minutes
Participants:
• Interviewer (Juan, AAU master students)
• Interviewee (Owner of a Spanish Phone Broker company, anonymized)

**Interviewer:** Could you briefly describe your company's role in the second-hand IT market?
**Interviewee:** We're in the business of buying and selling used mobile phones. They come from retail displays, leasing returns, or directly from end users. We don't have direct contracts with corporates; instead, we buy from companies that specialize in processing large volumes of phones.

**Interviewer:** Who are your main clients? Do you mostly work B2B or B2C?
**Interviewee:** We're almost entirely B2B. We sell to brokers, and also to shops that then sell to final customers or on marketplaces. Only 5–10% of our sales go through marketplaces. We try to keep that share as low as possible.

**Interviewer:** Which countries do you usually sell to?
**Interviewee:** Mostly France, Italy, the Netherlands, Spain, Portugal, and Poland. Roughly speaking: 30% France, 15% Italy, 10% Netherlands, 5% Poland, and the rest split between Spain and Portugal.

**Interviewer:** Based on your experience, how do price, warranty, and transparency affect customer trust?
**Interviewee:** Price is definitely the most important. We offer a 30-day warranty for wholesale clients. We also use grading and, depending on the lot, we might provide random photos or even videos, especially for lower grades.

**Interviewer:** Do you include any messaging related to sustainability or circular economy in your sales communication?
**Interviewee:** No, we're a very small business, just two people. We don't have time

for that kind of thing. We focus on buying, testing, and selling. Big companies with marketing departments might handle that, but not us.

**Interviewer:** Do you think end users or buyers are aware of the environmental benefits of buying refurbished or used?
**Interviewee:** That's more of a B2C thing. In B2B, it's strictly business. They want a good deal, and they're not thinking about doing the planet any favors.

**Interviewer:** Do you notice significant differences between countries or customer segments in how refurbished products are perceived?
**Interviewee:** Maybe a little, but nothing huge. France and countries that resell to Africa are extremely price-focused. For them, warranty doesn't really matter, once it leaves here, it's done. Shops that sell directly to end users, on the other hand, care more about accurate grading and transparency.

**Interviewer:** Do you adapt your sales strategies depending on the market?
**Interviewee:** Definitely. It depends on the type of customer more than the country. If we're selling to a reseller, we focus on price. If it's a shop selling to consumers, then they care more about condition and service.

**Interviewer:** What are the main barriers to increasing adoption of second-hand or refurbished mobile phones in Europe?
**Interviewee:** For private consumers, it's awareness. People who want the newest iPhone aren't going to buy used. For companies, I think it's more that the option isn't on their radar. If leasing and rental companies became more competitive and visible, that could help.

**Interviewer:** What criteria do you use when choosing suppliers?
**Interviewee:** We mostly buy from firms that have contracts with big leasing companies. When I find a new supplier, I check their online presence, maybe LinkedIn, see if they're active on platforms, and then start with small orders to test them out.

**Interviewer:** When you sell on platforms like Back Market, do you follow any specific communication or marketing strategy?
**Interviewee:** Not really. On Back Market, all sellers look the same. There's no real space to differentiate yourself, apart from reviews. We do focus on quality, though.

We don’t sell anything that we think might cause problems. Also, we avoid refurbished phones altogether.

**Interviewer:** Why don’t you sell refurbished phones?
**Interviewee:** Because “refurbished” often means repaired, and repairs usually mean trouble. Most refurbished phones use non-original parts, especially screens and batteries. Those repairs often fail over time. We only sell used phones, some of which are like new, but none are refurbished.

**Interviewer:** What kind of profit margins do you work with?
**Interviewee:** It depends. We aim for 20% on lower-priced phones (€50–100). On high-end models, like €600 phones, the margin might be just 5%. It all depends on volume and product type.

**Interviewer:** Do you tailor your communication strategy depending on whether the client is a shop or a broker?
**Interviewee:** Yes. Shops that sell to end users care more about trust and product quality. Brokers just want the best deal.

**Interviewer:** Is there anything else you think we should understand about how marketing or communication could help expand the refurbished or second-hand IT market?
**Interviewee:** I think some platforms are actually hurting the market. On places like Back Market, a lot of bad products get sold, phones with fake parts, or units that look fine but are fragile inside. That damages consumer trust. There should be more transparency and clearer distinctions between “used” and “refurbished.” Right now, it’s all mixed together.

**Appendix 2 - Interview with French-Italian Trader**

Date: April 11, 2025
Location: Online meeting via Microsoft Teams
Duration: 97 minutes
Participants:
• Interviewer (Giovanni, AAU master students)
• Interviewee (Owner of a French-Italian Trader company, anonymized)

**Interviewer:** Can you briefly describe your company's role in the refurbished IT market?

Interviewee: I lease equipment to end users, often through 24-month contracts that mix new and refurbished units, usually 80% new, 20% refurbished-as-new. After the lease, I retrieve the equipment, ensure data wiping is properly done, audit it, and then decide whether to sell it directly, send it to a refurbisher, or break it down for parts. I work with software that can tag and track units globally, even ensuring the device can data wipe itself automatically when returned. My experience spans leasing, broking, buying, recycling, and harvesting, so I know the entire lifecycle.

**Interviewer:** Can you explain the lifecycle of refurbished IT from your experience?

**Interviewee:** Sure. The full cycle goes like this: First, leasing, I provide new and refurbished units under contract. Second, trading, once I get them back, I assess and resell or refurbish. Third, recycling, I break down unsellable units and sell components like motherboards or memory. It's a full-circle operation, and I've worked in every stage of it.

**Interviewer:** Who are your main clients (B2B, B2C)? What countries or regions do you serve?

Interviewee: I focus on B2B. I specialize in selling to refurbishers, particularly those working with Lenovo contracts. I trade a lot of Lenovo units across Italy, France, England, and occasionally Scandinavia and Poland. I don't sell B2C because I think it's too much hassle for the return.

**Interviewer:** How do price, warranty, and transparency about product condition affect customer trust in your experience?

Interviewee: Trust is everything. You earn it by being consistent. If you promise a Grade A unit, it better be a Grade A. A mistake once is forgivable, but twice? You're done. Prices follow the market, and warranties or fair handling of issues build your reputation. I'd rather be known as trustworthy than rich, and my clients know that.

**Interviewer:** What kind of information do you provide to your clients regarding product quality (e.g., grading, testing, visual condition)?

Interviewee: Every unit is data-wiped and visually inspected. We run audit reports and classify units as Grade A, B, or C. We also include pictures and sometimes video if there's heavy wear. Grading is a worldwide standard, but how seriously it's taken depends on the seller. For me, it's a reputation issue.

**Interviewer:** Are sustainability factors (e.g., environmental impact, circularity) part of your sales or marketing communication?

Interviewee: Yes, we're legally required now. Certifications like ISO matter, if you don't have them, no one wants to work with you. It's not just a checkbox. It affects who trusts you and who doesn't.

**Interviewer:** What sustainability-related messaging or practices seem to resonate most with your customers?

Interviewee: Depends on the client. Some just want the lowest cost. Others want to renew units they can resell with a green story. The real sustainability is in prolonging life: avoiding new cobalt mining, recycling batteries, even melting down plastics for reuse. But remember, the cleaner and more ethical the process, the more it costs.

**Interviewer:** Do you believe end users or buyers are well-informed about the environmental benefits of refurbished IT?

Interviewee: Honestly? No clue. I only talk to people in the industry. You should ask students or end users.

**Interviewer:** Do you notice significant differences between countries or customer segments in how refurbished products are perceived?

Interviewee: Not really. The market is quite unified across Europe, especially with GDPR. Everyone has to follow similar standards.

**Interviewer:** Do you adapt your sales strategies depending on the market? Can you share an example?

Interviewee: Absolutely. The market cycles seasonally. For example, December is great for buying because big players want to clear stock. January, everyone's dry. If you can hold inventory, you get a huge edge. COVID showed that reused computers are recession-proof. Demand skyrocketed when new units weren't available.

**Interviewer:** From your perspective, what are the key challenges in increasing the adoption of refurbished IT equipment in Europe?

Interviewee: Government rules are pushing it, but the real issue is still perception. Some think used means unreliable. But if we highlight the full cycle, from secure data wiping to environmental benefits, it helps. Also, the labor practices abroad where refurb is cheap, that's a hidden cost people don't always see.

**Interviewer:** How do you acquire equipment from large organizations (e.g., banks, retail HQs)? Is trust or brand image a factor in the negotiation?

Interviewee: Usually, big players like banks stick with partners they've worked with for decades. These companies handle the data wiping, secure logistics, and compliance. Trust is a huge factor, it's not just about buying equipment; it's about handling sensitive data. For instance, Intesa Sanpaolo isn't just going to let anyone touch their computers. They care about their image and data security. I personally don't go after that business, too many overheads. I make quicker money trading directly in the open market.

**Interviewer:** How important is the certified data wiping process for your clients? Do you use this in marketing or sales positioning?

Interviewee: It’s crucial. The value of a used computer is immeasurable because of what’s on it, credit cards, formulas, customer lists. We use certified wiping and software that ensures everything is securely deleted. It’s one of the first things clients ask about. I always bang on about security and sustainability, they go hand in hand. If you’re not certified, no one takes you seriously.

**Interviewer:** What kind of buyers typically purchase your batches? Do you engage with end-user-focused messaging or only B2B?

Interviewee: Only B2B. I mostly deal with refurbishers. Selling to end users? That’s a Mickey Mouse business. You need warranties, customer support, branding, too much hassle for too little margin. I’d rather sell 300 units to a refurbisher than 3 to consumers.

**Interviewer:** Do you see interest from your partners (e.g., brokers) in sustainability storytelling or certifications?

Interviewee: Certifications? Absolutely. Everyone asks for them. ISO, GDPR, data security, it’s not optional anymore. Storytelling? Depends on the partner. Some care, some don’t. But you better believe the paperwork has to be clean.

**Interviewer:** Is there anything else you think we should understand about how marketing or communication could help expand the refurbished IT market?

Interviewee: Yeah, tell the full story. People care about trust, about ethics, about impact. If you can show where it came from, how it's cleaned, how you're avoiding child labor or reducing cobalt use, that matters. Use visuals. Use storytelling. But keep it real.

**Interviewer:** What’s your view on the environmental and ethical impact of the refurbished IT industry?

Interviewee: It's a mixed bag. Refurbishment reduces e-waste and the need for new materials, sure, but there are hidden costs. For example, cobalt mining for batteries often involves child labor. And some refurbishers use cheap labor in places like the UAE to cut costs, that’s not very sustainable, is it? Real sustainability costs more, but it matters if you care about the planet and people.

**Interviewer:** Can you describe any innovations or best practices in battery recycling you've encountered?

Interviewee: I worked with a battery recycler that stopped using water to neutralize batteries, because then you end up with polluted water. Instead, they used sand to deactivate the cobalt, then packed it into powder bricks. It's safer, cleaner, and you can even ship it across borders more easily. That kind of stuff excites me.

**Interviewer:** If you had the chance to improve communication around refurbished IT, what would you do?

Interviewee: I'd go into schools and universities and teach kids about refurbished tech. Show them it's not just cheaper, but better for the planet. Set up small local shops that give people access to affordable, quality tech with full transparency and a swap policy. That would do more than any social media ad.

**Interviewer:** Would you be open to us reaching out for clarification or follow-up if needed?

Interviewee: Absolutely. Call me any time. Always happy to help.

**Appendix 3 - Interview with German ITAD**

Date: April 17, 2025
Location: Online meeting via Microsoft Teams
Duration: 42 minutes
Participants:
• Interviewer (Juan & Giovanni, AAU master students)
• Interviewee (Sales employee at a German ITAD, anonymized)

**Interviewer:** Thank you again for your time. As I explained in the email, this is part of my master's thesis on the circular economy and the role of used IT equipment. Your answers will be anonymized and used only for academic purposes.

**Interviewee:** Yes, no problem. Happy to help.

**Interviewer:** Great. So, first question: could you briefly describe your company's role in the refurbished IT market?

**Interviewee:** Certainly. We are a major IT provider operating across Europe, and one of our business units is dedicated to IT asset disposition and lifecycle services. We work with corporate and public sector clients to manage end-of-life equipment: we take care of secure logistics, certified data wiping, testing, refurbishing, and either redeployment or resale of the devices through various B2B and institutional channels.

**Interviewer:** And who are your main clients? Is it B2B, B2C? Which countries do you serve?

**Interviewee:** Primarily B2B. We serve a wide range of organizations such as enterprises, government bodies, and education providers, both in Germany and across Europe. Our services cover Germany, Austria, Switzerland, the Benelux region, and we also have presence in other markets like France and the Nordics. We don't directly engage with end consumers in this area.

**Interviewer:** Okay, got it. Based on your experience, how do price, warranty, and transparency about product condition affect customer trust?

**Interviewee:** These are essential elements. Especially transparency. In the B2B context, buyers often have procurement and compliance frameworks they need to meet, so we provide detailed audit trails, condition grading, warranty options, and certified reports. Price matters of course, but what really differentiates us is the consistency and professionalism we bring to the process. Trust is built through reliability.

**Interviewer:** And what kind of information do you give them? You mentioned grading?

**Interviewee:** Yes. We have internal grading standards aligned with industry benchmarks like A, B, and C grades, plus technical diagnostics. For large institutional clients, we share test logs, asset reports, and even inventory level tracking through our IT platforms. Visual condition, performance specs, battery health, everything is documented.

The grading scheme is a cornerstone of our transparency efforts. But unfortunately, across Europe there is no unified standard, which creates serious challenges. For us, a Grade B laptop might have only minor scratches, while others label heavily worn or dented devices as Grade B. This inconsistency creates confusion and erodes buyer trust, especially for those of us trying to maintain high standards. It’s frustrating, because we sometimes lose deals to sellers that misrepresent product condition. That damages the entire industry's credibility.

**Interviewer:** Do you include sustainability-related information in your sales or marketing?

**Interviewee:** Yes, especially for public tenders and enterprise clients with CSR goals. We provide data on CO2 savings, waste diversion metrics, and circular lifecycle extension. Sustainability is increasingly embedded into the procurement criteria, and we make sure our documentation and messaging reflect that.

**Interviewer:** And do you think your customers are generally well-informed about these environmental benefits?

**Interviewee:** It varies. Public institutions and larger corporates tend to be more aware and even request ESG reporting. Smaller buyers may not be as focused on that, but they still appreciate the narrative when it's well communicated. What matters is making the benefit concrete and credible.

**Interviewer:** Have you noticed differences between countries or client types in how refurbished or used IT is perceived?

**Interviewee:** Definitely. German and Dutch customers typically value documentation and compliance highly. In Southern Europe, price sensitivity is stronger and the focus is more on basic function. Scandinavia is quite mature in terms of environmental awareness. So we do adapt.

**Interviewer:** So, do you adapt your sales strategy depending on the market?

**Interviewee:** Absolutely. For instance, in Austria and Germany, we highlight our ISO certifications and data security practices. In Italy and Spain, we adjust the packaging and presentation to be more visually appealing and flexible on batch composition. It's about aligning with local expectations.

**Interviewer:** That's very helpful. And in your view, what are the main challenges to increasing the adoption of used IT equipment across Europe?

**Interviewee:** There are several. One is perception; "used" is still seen as risky in many cases. Another is policy. Many procurement frameworks default to new equipment. And finally, the supply chain is fragmented, and not all resellers operate with the same quality standards, which can damage trust in the market.

**ITAD-Specific Questions**

**Interviewer:** Now a few questions specific to your role as an ITAD. First, how do you acquire equipment from large organizations? And is trust or brand image important in the negotiation?

**Interviewee:** Yes, those are both fundamental. We usually acquire equipment through existing client contracts or RFPs. Our clients choose us not only because of pricing, but because of our security guarantees, compliance with GDPR and ISO

standards, and the fact that we handle everything in-house. The brand reputation helps open doors, but it’s our operational performance that keeps clients long-term.

**Interviewer:** I see. And how important is the certified data wiping process for your clients?

**Interviewee:** Extremely important. We use certified tools such as Blancco and produce audit reports for every unit. For many clients, especially in finance or healthcare, this is non-negotiable. Data protection is a top concern, and we make sure that’s a key part of our value proposition.

**Interviewer:** What kind of buyers typically purchase your batches? Do you also communicate to end users or is it strictly B2B?

**Interviewee:** Strictly B2B. Our buyers are either IT resellers, system integrators, or institutional users. We don’t do end-user communication in this space. That said, some of our clients may resell to end consumers, and they use our documentation as part of their presentation.

**Interviewer:** And do you see interest from your buyers like brokers in certifications or sustainability messaging?

**Interviewee:** Yes. Especially if they operate in education or government sectors. We’ve had buyers request sustainability data for inclusion in their tenders. It’s not always a priority, but it's becoming more important, particularly in Northern Europe.

**Interviewer:** Is there anything else you think we should understand about how communication or marketing could expand the market for used IT?

**Interviewee:** I think one area is better standardization. If the industry could agree on common quality levels and reporting formats, that would build trust across the board. And from a communication standpoint, showing the lifecycle extension and CO2 savings in practical terms, not just abstract values, can really help.

**Interviewer:** That’s a great point. And finally, would you be open to us contacting you again in case we need clarification?

**Interviewee:** Yes, of course. Feel free to reach out by email.

**Appendix 4 - Interview with Multi-device Spanish Broker**

Date: April 22, 2025
Location: Online meeting via Microsoft Teams
Duration: 55 minutes
Participants:
• Interviewer (Juan, master's student, Spain)
• Interviewee (Owner of a Spanish broker, anonymized)

**Interviewer:** First of all, thank you very much for taking the time. As I mentioned, your answers will be anonymized and used solely for academic purposes.

**Interviewee:** Of course, no problem at all.

**Interviewer:** To start, could you briefly describe your company's role in the used IT equipment market?

**Interviewee:** We are a Spanish broker specializing mainly in laptops, desktops, and servers. We've been active in the market since the 90s. We buy large volumes of used equipment from suppliers all over Europe, such as Germany, France, Sweden, Italy, and Denmark, and we resell primarily to Spanish private companies and also to other brokers. We work exclusively in B2B; we don't sell on marketplaces or to end consumers.

**Interviewer:** What are the main criteria you consider when buying equipment?

**Interviewee:** Uniformity is key. When we buy a batch, we want as few different models as possible. If we have 100 laptops, ideally there would be one, two, or at most three different models. If there are 30 different models, it's not worth it for us because we would have to create 30 separate product listings, and that complicates our internal management a lot.

We also place great importance on transparency in the information. If the supplier's Excel does not include clear data about the model, CPU, RAM, SSD, screen size, battery condition, and cosmetic grade, we don't buy. Also, we prefer simple grading systems: A, B, C, or D. We don't like things like A+, B-, or A++ because this only

complicates understanding and makes it harder to standardize criteria among different suppliers.

**Interviewer:** Regarding trust factors like price, warranty, or transparency, which one would you say is the most important for you?

**Interviewee:** Without a doubt, transparency. If a supplier is transparent, with good descriptions, clear grading, and photos if necessary, we can work with them even if the price is a bit higher.

When we work with a new supplier, we always start with a small test batch, between €10,000 and €25,000. If everything matches, if the grading corresponds to reality and the specifications are correct, then we can move on to larger purchases.

Warranty is not a key factor for us. We know how to handle minor defects internally. What we do is claim compensations or refunds if the batch has many undeclared defects.

**Interviewer:** Do you use sustainability or green marketing messages in your sales communication?

**Interviewee:** No, honestly. Our clients don't buy because it's ecological. They buy because the product is cheaper and functional. Sustainability is a bonus, but it doesn't drive the sale. Maybe it matters more in B2C, but in our B2B sector in Spain, it's not relevant.

**Interviewer:** Have you noticed differences between countries or suppliers in how they present grading or product information?

**Interviewee:** A lot. In Germany, for example, some suppliers have very strict grading schemes. In France or Italy, sometimes they are looser. The quality of Excels also varies greatly. Some send you serial numbers, battery percentage, scratch descriptions, while others simply "used laptop, good condition," which is useless for us.

The biggest problem is that there is no unified grading standard in Europe. Every supplier interprets Grade B differently. For us, Grade B means minor scratches and

perfect functionality. Others sell you a Grade B laptop with broken keys or defective ports. It's a disaster. A common European system should be established, both for grading and for detailed Excel specifications.

**Interviewer:** Very interesting. How do you usually evaluate new suppliers?

**Interviewee:** We request a test batch. Then we check that the actual condition of the products matches what was promised in the documentation. We also pay a lot of attention to how their Excel is structured. If the information is poor, inconsistent, or unclear, we don't continue working with them.

**Interviewer:** Do you see any future trends in the used IT market?

**Interviewee:** Yes, clearly. The future is heading toward much more detailed Excels, including serial numbers, all technical specifications, and clear, transparent grading. This would make audits much faster, avoid claims, and save time and resources for both buyers and suppliers. Whoever invests in data quality will win.

**Interviewer:** It makes perfect sense. Thank you very much for your time and all your insights.

**Interviewee:** You're welcome. Good luck with your thesis!

**Appendix 5 - Interview with Spanish ITAD**

Date: May 1, 2025
Location: Online meeting via Microsoft Teams
Duration: 58 minutes
Participants:
• Interviewer (Juan, AAU master's student, Spanish)
• Interviewee (CEO of a Spanish ITAD, anonymized)

**Interviewer:** First of all, thank you very much for participating. As I mentioned, everything will remain anonymous and will be used solely for academic purposes.

**Interviewee:** Of course, happy to contribute to your work.

**Interviewer:** To start, could you briefly describe your company's role in the used IT equipment market?

**Interviewee:** We are a Spanish ITAD company, relatively young with a bit less than 10 years of experience. We focus on collecting IT equipment from large organizations across Europe, such as audiovisual companies, banks, and corporate headquarters. After securely wiping all data, we either resell the best-grade products individually through marketplaces like Back Market and Refurbed, or we sell batches containing a mix of grades (A, B, C, D) to brokers and traders.

**Interviewer:** So you operate in both B2B and B2C channels?

**Interviewee:** Exactly. Through marketplaces, we handle B2C sales, usually targeting end consumers who are willing to pay a premium for well-graded, guaranteed products. In B2B, we sell larger batches to brokers, often including mixed conditions, because that's standard practice. This diversification allows us to balance margins and inventory flow.

**Interviewer:** How do price, warranty, and transparency about product condition affect customer trust in your experience?

**Interviewee:** They are essential, but it depends on the channel. In B2C, warranty and cosmetic grading are absolutely critical. Consumers expect almost retail-like

conditions and guarantees. In B2B, price is more important, but transparency in grading and specs is non-negotiable. Any mismatch leads to disputes, claims, and time loss, which we work hard to avoid.

**Interviewer:** What kind of information do you provide to your clients regarding product quality?

**Interviewee:** For B2C sales, we provide detailed product descriptions, high-quality photos, battery health information, and warranty conditions. On the B2B side, we send detailed Excel files listing the main specifications, cosmetic grades, and notes on any visible defects. We aim to standardize grading using simple categories: A, B, C, and D.

**Interviewer:** Do you face challenges balancing B2B and B2C operations?

**Interviewee:** Absolutely. In B2C, margins are higher but inventory turnover is slower. Selling unit by unit requires large stock levels and constant management. In B2B, sales are faster and cleaner because you move volume at once, but margins are much tighter, and the risk of returns or disputes from audits is higher. We are working hard to improve our B2B processes to scale further.

**Interviewer:** Do you integrate sustainability-related messaging into your sales or marketing communication?

**Interviewee:** In B2C, yes. We highlight the environmental benefits of extending device lifecycles, reducing e-waste, and contributing to the circular economy. It helps improve brand positioning and justify a slightly higher price. In B2B, however, sustainability is rarely a decisive argument; price, grading accuracy, and logistics dominate discussions.

**Interviewer:** Have you noticed differences between buyers in different countries?

**Interviewee:** Some. For example, North European brokers are stricter about documentation and grading standards. Southern European buyers tend to focus more on price and are slightly more flexible on cosmetic details. We adapt depending on the market.

**Interviewer:** You mentioned grading earlier. How important is a unified grading system for your business?

**Interviewee:** Very important. Lack of grading standardization is one of the biggest inefficiencies in this sector. For example, one supplier's Grade B might be another supplier's Grade C. This confusion leads to disputes, slows audits, and erodes trust. We strongly support the idea of a Europe-wide grading standard, with clear definitions and examples for each grade.

**Interviewer:** What do you see as the main challenges to growing your business?

**Interviewee:** Strengthening our B2B sales channel is the priority. To be a major ITAD in Spain, we must build stronger relationships with large European brokers and traders. We also need to keep improving the transparency and accuracy of our documentation to minimize claims and returns. Professionalizing our processes will be key to scaling efficiently.

**Interviewer:** Is there anything else you think is important to understand about communication in the refurbished IT sector?

**Interviewee:** Yes. Clear, standardized, and detailed communication, both in terms of product information and grading, is what separates serious players from opportunistic sellers. Buyers want to know exactly what they are paying for, and good documentation saves time, builds trust, and reduces friction in every transaction.

**Interviewer:** Excellent points. Thank you very much again for all your insights.

**Interviewee:** You're welcome. Take care and let me know if we can help you with anything else!

**Appendix 6 - Interview with Dutch Broker**

Date: May 4, 2025
Location: Online meeting via Microsoft Teams
Duration: 50 minutes
Participants:
• Interviewer (Juan, master's student, Spain)
• Interviewee (Sales Department Employee at a Dutch broker, anonymized)

**Interviewer:** First of all, thank you very much for participating. As I mentioned, your answers will remain anonymous and will only be used for academic purposes.

**Interviewee:** Sure, let’s get started.

**Interviewer:** Could you briefly describe your company's role in the used IT equipment market?

**Interviewee:** We are a medium-sized Dutch broker, specialized mainly in devices like phones, tablets, and laptops. We have a strong presence in the national market and also some international customers. We purchase large volumes from ITADs and, when conditions are right, from other brokers.

**Interviewer:** Who are your main clients? Is it mainly B2B or B2C?

**Interviewee:** We are hybrid. We sell a good amount B2B to other brokers, but we also have a strong presence in B2C through marketplaces. Both channels are important for us.

**Interviewer:** How do price, warranty, and transparency about product condition affect customer trust in your experience?

**Interviewee:** They are all critical. B2C customers are especially sensitive about transparency and warranty. They want everything clear upfront. B2B clients expect transparency too but focus more on batch condition, margin possibilities, and consistency of supply.

**Interviewer:** What kind of information do you provide about the product quality?

**Interviewee:** We always provide detailed specs, grading, and photos when needed. We have internal standards for grading but sometimes it's tricky because grading standards are not the same across suppliers.

**Interviewer:** What sourcing criteria do you use when buying stock?

**Interviewee:** Several things. First, the origin: we prefer buying directly from ITADs. If it’s a broker, we are more cautious and usually only buy if they have a good track record.

Second, the keyboards. For laptops, it’s extremely important they have international English keyboards. We generally avoid buying lots with non-English layouts. Maybe, if it's German keyboards and the price is extremely competitive, we consider it. But repainting keyboards is a big hassle and not worth it most of the time.

**Interviewer:** Interesting. How important is brand preference for you?

**Interviewee:** Very important. Apple products have much higher margins than other brands, both for phones and laptops. We prioritize Apple when possible, but it has to be clean stock with the right specs and grading.

**Interviewer:** Do you use any sustainability or green marketing communication in your sales?

**Interviewee:** In B2C, yes. When we sell on marketplaces, we mention sustainability, the idea of "giving devices a second life" and so on. It helps build trust with end customers. In B2B, not really. There it’s purely about price, grading, and reliability.

**Interviewer:** Have you noticed regional differences between customers?

**Interviewee:** Yes. Dutch customers tend to be very detail-oriented, they want precise information before buying. Other markets, like Southern Europe, are sometimes more price-driven and a bit more flexible with cosmetic conditions.

**Interviewer:** What are the main challenges you face as a broker?

**Interviewee:** One challenge is definitely the inconsistency in grading standards across suppliers. Another one is sourcing enough stock with international English keyboards. It really limits what lots we can buy, especially when dealing with laptops.

**Interviewer:** And what do you see as opportunities for your company in the coming years?

**Interviewee:** We want to keep growing both our B2B and B2C sides. Strengthening relationships with reliable ITADs is a priority. Also, securing cleaner, better-specified stock, especially Apple devices, will help us maintain healthy margins.

**Interviewer:** Is there anything else you would like to add regarding communication or market expansion?

**Interviewee:** Just that more transparency, more standardization in grading, and better product descriptions would make the whole market more efficient. Buyers waste too much time today verifying batches manually.

**Interviewer:** Thank you very much again for your time and insights.

**Interviewee:** Thanks for the conversation. Wishing you all the best with your project!

**Appendix 7 - Interview with Danish B2B Marketplace**

Date: May 2, 2025
Location: Online meeting via Microsoft Teams
Duration: 62 minutes
Participants:
• Interviewer (Giovanni, AAU master students)
• Interviewee (CEO at a Danish B2B Marketplace company, anonymized)

**Interviewer:** Can you briefly describe your company's role in the refurbished IT market?

**Interviewee**: I'm the COO and founder of a B2B Danish marketplace. We're not your typical refurbisher or broker. We're more like a SharePoint-style digital sales platform. Our job is to connect the right sellers and buyers in the refurbished IT ecosystem, from laptops and monitors to data center equipment. We help companies that handle logistics, like secure pick-up and data sanitization, find the right B2B buyers.

**Interviewer:** Who are your main clients (B2B, B2C)? What countries or regions do you serve?

**Interviewee**: Strictly B2B. Our platform isn't for end consumers. We work with companies like leasing firms, ITADs, or reverse logistics providers. Our main markets are Scandinavia and Northern Europe, but we're expanding into Spain and creating small ecosystems by region, Scandinavia, Italy, etc.

**Interviewer:** What do you mean by creating "ecosystems" by region? Can you give an example?

**Interviewee**: Sure. One example is keyboards. In Denmark or Sweden, laptops come with Scandinavian keyboard layouts. So when we build an ecosystem around that, we find buyers in those countries to avoid the cost and hassle of keyboard replacement. A buyer in Spain or France would have to pay extra to adapt it, so it's more efficient to match sellers and buyers within the same layout region. That's the idea behind small ecosystems.

**Interviewer:** How do price, warranty, and transparency about product condition affect customer trust in your experience?

**Interviewee**: It's everything. Warranty is like car insurance, you want it, but you hope you never need it. Transparency though? That's critical. Twenty years ago, you'd walk down the street to compare prices. Now, every webshop is a digital storefront. If you're overpriced, people will find out immediately. So transparency and competitive pricing go hand in hand. Our platform supports this by creating digital windows into available stock.

**Interviewer:** What kind of information do you provide to your clients regarding product quality (e.g., grading, testing, visual condition)?

Interviewee: We onboard sellers with grading requirements. There's a basic A/B/C system, but everyone interprets it a bit differently. That's why we ask sellers to explain their grading criteria and include example photos. This builds trust. One seller’s "B" might be another’s "C." The explanation matters.

**Interviewer:** Are sustainability factors (e.g., environmental impact, circularity) part of your sales or marketing communication?

**Interviewee**: Personally, yes. For me and my co-founder, it’s about making a difference. But as a market? Not yet. It’s still a buzzword for most. Customers ask first about price, GDPR compliance, and convenience. Sustainability is way down the list, it’s discussed, not executed.

**Interviewer:** What sustainability-related messaging or practices seem to resonate most with your customers?

**Interviewee**: Honestly? Time savings, cost reduction, compliance. That’s what people care about. You have to lead with that. Only after they're interested do they want to hear about ESG metrics or carbon impact. So the message has to follow the money.

**Interviewer:** Do you believe end users or buyers are well-informed about the environmental benefits of refurbished IT?

**Interviewee**: Kind of. There's been a lot of talk in the media, especially in Scandinavia. But we're also misinformed. Some companies market themselves as sustainable, but they're flying laptops around the world to be refurbished in low-labor-cost countries. That's not green, that's greenwashing.

**Interviewer:** What's your view on sustainability claims in the industry? Are some companies greenwashing?

**Interviewee**: Yes, unfortunately. Some companies fly laptops to the UK, then to Dubai, and back again, all while marketing themselves as green. That's just bad for the environment. If we had a third-party authority to call it out, I'd be all for it. But I can't be the one doing that publicly, I'd lose clients.

**Interviewer:** Do you think an independent authority is needed to verify refurbishment practices and sustainability?

**Interviewee**: 100%. Like you have a happy smiley for clean kitchens in restaurants, you need something similar for refurbishment. It would motivate companies to do the right thing if they got public credit for it. Otherwise, fake claims keep winning.

**Interviewer:** Do you notice significant differences between countries or customer segments in how refurbished products are perceived?

**Interviewee**: Yes and no. The real differentiator is disposable income. If someone has extra money, they'll always prefer new over used. But when wallets are tight, people consider refurb. Culturally, France stands out because of their 20% refurb legislation. That kind of policy drives change.

**Interviewer:** Do you adapt your sales strategies depending on the market? Can you share an example?

**Interviewee**: We're still a young company, but yes. If tomorrow drones become the next big refurb category, we'll build tools for it. Same if B2C becomes feasible. Our growth depends on resource availability, but we're flexible.

**Interviewer:** From your perspective, what are the key challenges in increasing the adoption of refurbished IT equipment in Europe?

**Interviewee**: Lack of information and clear labeling. We need authorities that verify where and how something was refurbished. Was it done in Denmark under decent labor conditions, or in a sweatshop in Dubai? That should be clear to the buyer. Like food or fashion labels.

**Interviewer:** As you work without stock, how do you manage buyer expectations and ensure trust in product condition?

**Interviewee**: It starts with onboarding. We teach sellers how to list their equipment properly, with grading, pictures, and explanations. Then we let buyers see who the seller is. Over time, they learn who’s reliable. The ones with polished listings and honest grading get the most attention.

**Interviewer:** Can you explain how your company improves sustainability in data usage and communication?

**Interviewee**: Totally. Instead of emailing hundreds of Excel files, we act like SharePoint. Everything's uploaded once, and buyers browse it online. That reduces email clutter, duplicate files, and energy usage. It's a more sustainable way to transact, and we're proud of that even if we don't shout about it.

**Interviewer:** What is your usual process: buyer request first, then sourcing? How do you decide who to buy from?

**Interviewee**: We don't buy stock ourselves. Sellers upload listings, and we notify potential buyers. Anyone can apply to sell on our platform, but we screen for the right fit. ITADs, reverse logistics companies, leasing firms, those are our ideal partners.

**Interviewer:** Are there marketing or presentation strategies you use to convince the end customer (e.g., forward product sheets, certifications)?

**Interviewee**: Yes. Every listing includes photos, grading standards, and detailed descriptions. We also show who the seller is. Buyers can see their track record, how long they’ve been around, what Intervieweruality they offer. That builds trust.

**Interviewer:** Do your clients ever ask about environmental benefits, product traceability, or social responsibility?

**Interviewee**: Sometimes, but it's not top of mind. First, they ask if the product is available, secure, and easy to get. Then they might mention sustainability. But we do embed ESG reporting and traceability features into the platform so they have access if they care.

**Interviewer:** Is there anything else you think we should understand about how marketing or communication could help expand the refurbished IT market?

**Interviewee**: Yes,  but I'm not a marketing expert. That's why we've brought in an Erasmus student who's now helping with things like a blog and tips about the circular economy. The key challenge is that we have to stay neutral. I can't call out greenwashing publicly, even if I want to, because I risk losing clients. What we really need is an independent authority that can do the truth-telling, a third party that can say, "these guys are doing it right," or, "this refurbisher ships everything to low-cost labor zones and calls it sustainable." If companies were rewarded publicly for doing the right thing, with something like the restaurant "smiley system", that would motivate change more than any marketing campaign. But for now, we stay diplomatic and Intervieweruiet.

**Interviewer:** Would you be open to us reaching out for clarification or follow-up if needed?

**Interviewee**: Of course. Happy to help.

**Appendix 8 - Interview with French Service & Maintenance company**

Date: May 5, 2025
Location: Online meeting via Microsoft Teams
Duration: 57 minutes
Participants:
• Interviewer (Juan, master's student, Spain)
• Interviewee (Key Account Manager at a French Service & Maintenance Company, anonymized)

**Interviewer:** Thank you very much for agreeing to the interview. As mentioned earlier, this conversation will remain anonymous and will be used exclusively for academic purposes.

**Interviewee:** Absolutely. Go ahead.

**Interviewer:** Can you briefly describe your company's role in the used IT market?

**Interviewee:** We are a service and maintenance company that manages long-term IT infrastructure contracts for large corporate clients. Our responsibility is to ensure that all their IT assets, laptops, servers, desktops, etc., remain operational throughout the duration of the agreement, which often spans several years. This includes break/fix services, preventive maintenance, upgrades, and end-of-life asset handling.

**Interviewer:** Who are your main clients (B2B, B2C)? What countries or regions do you serve?

**Interviewee:** We work exclusively B2B. Our clients are usually multinational companies with complex IT infrastructures. We primarily operate across France and Belgium, but we also have contracts in Germany, Spain, and sometimes the Netherlands.

**Interviewer:** How do price, warranty, and transparency about product condition affect customer trust in your experience?

**Interviewee:** These factors are critical, although the context is different from resale. When we purchase components, especially to maintain existing infrastructure, we need maximum transparency and traceability. If a part fails or doesn't match the specs, it puts our client's operations and our SLA at risk. Warranty is appreciated, but our priority is trust in the test data and delivery accuracy.

**Interviewer:** What kind of information do you require regarding product quality (e.g., grading, testing, visual condition)?

**Interviewee:** Functionality and technical documentation come first: serial numbers, firmware version, model compatibility, and ideally test logs. Cosmetic condition is less important, unless the part is customer-facing. Unfortunately, there's little standardization, which causes problems. One vendor’s “tested” can mean something completely different from another’s.

**Interviewer:** Are sustainability factors (e.g., environmental impact, circularity) part of your communication with clients?

**Interviewee:** More and more. Our clients often have sustainability targets. We help them meet those goals by extending device lifespans and reducing e-waste. We provide reporting on asset use, repair frequency, and retirement. Still, sustainability is part of the outcome, not the main driver. Operational continuity comes first.

**Interviewer:** What sustainability-related messaging or practices seem to resonate most with your clients?

**Interviewee:** Clear reporting metrics: how long a server stayed active, how many repairs were done, and what proportion of parts were reused instead of replaced. Clients value data they can use in CSR reports.

**Interviewer:** Do you believe end users or buyers are well-informed about the environmental benefits of refurbished or reused IT?

**Interviewee:** In our case, the "buyer" is often a procurement or operations team. They are more aware than before, but cost and risk reduction are still their main concerns. Environmental benefits are welcome, but secondary.

**Interviewer:** Do you notice significant differences between countries or customer segments in how reused products are perceived?

**Interviewee:** Yes. In France and Belgium, our clients are generally very open to using second-hand parts if reliability is proven. In Germany, the documentation requirements are stricter. In Southern Europe, there's more flexibility but sometimes lower expectations regarding traceability.

**Interviewer:** Do you adapt your sourcing or documentation strategies depending on the client or region?

**Interviewee:** Absolutely. For some clients, we need to include full test reports and photos. For others, it’s enough to have basic traceability and part numbers. Flexibility is key.

**Interviewer:** From your perspective, what are the key challenges in increasing the use of second-hand IT equipment in Europe?

**Interviewee:** Lack of standardization. Especially in grading and testing practices. Also, too much variation in documentation. It slows down operations and increases the risk of disputes. We would welcome a European certification or documentation protocol, even just for parts and servers.

**Interviewer:** Specific to your role, what criteria do you use when selecting suppliers for spare parts?

**Interviewee:** Three key things: Availability, can they deliver fast? Technical confidence, is the part tested and documented? Trust, are they responsive and consistent in their labeling?

**Interviewer:** What is your view on your company’s role in the circular economy?

**Interviewee:** We’re often overlooked, but we’re essential. We make reuse happen by keeping equipment working longer. We buy, install, maintain, and eventually dispose of devices, often coordinating resale or recycling. Our work makes the loop real.

**Interviewer:** Is there anything else you think we should understand about how communication could help expand the used IT market?

**Interviewee:** Better product transparency, documentation, and faster digital access to specs would go a long way. Most delays and returns come from mismatches in expectations due to unclear communication.

**Interviewer:** Would you be open to us reaching out for clarification or follow-up if needed?

**Interviewee:** Of course. Good luck with the rest of your research!

## Appendix 9 - Interview Guide - General and Role-Specific Questions

### General Interview Questions (asked to all participants)

These were designed to align directly with the research questions and were relevant regardless of actor type:

- Can you briefly describe your company's role in the used and refurbished IT market?
  (Establishes context and actor type.)

- Who are your main clients (e.g., brokers, end-consumers, marketplaces)?
  (Clarifies B2B vs. B2C exposure.)

- In your experience, how do price, warranty, and transparency affect customer trust?
  (Directly linked to RQ1.)

- What kind of information do you provide about product quality (e.g., grading systems, photos, technical specs)?
  (Expands on operational trust-building.)

- Do you include any sustainability or circular economy-related messaging in your sales communication?
  (Linked to RQ2.)

- Do you think your clients are well informed about the environmental benefits of used and refurbished IT products?
  (Addresses consumer awareness for RQ3.)

- Do you observe significant differences across countries in how used and refurbished products are perceived?
  (Explores regional variation for RQ4.)

- Do you adapt your communication or sales strategy depending on the market?
  (Follows up on question 7 and supports comparative analysis.)

- What are the key challenges to increasing the adoption of used and refurbished IT products in your experience?
  (Exploratory, contributes to both Chapter 5 and 6 discussions.)

These general questions served as the baseline for thematic coding and ensured that the dataset would allow for comparison across actor types, even if their operational roles differed.

**Role-Specific Questions (tailored by actor type)**

These questions were designed to deepen the conversation around each actor's actual practices, and to capture detail that would otherwise be missed by generic questions.

**IT Asset Disposition Companies (ITADs)**

Focused on technical transparency, security, and formal processes:

- What standards or certifications do you follow for data wiping and refurbishment?

- Do you use certifications or audit reports when communicating with buyers?

- Is data security a sales argument in your communication strategy?

- How do you acquire equipment from large organizations (e.g., banks, leasing firms)?

- Do clients ask about traceability or GDPR compliance?

These questions reflect the ITADs' central role in ensuring product quality and legal compliance, particularly in B2B sales.

**Brokers and Intermediaries**

Focused on sourcing, pricing logic, and relational trust:

- What are your sourcing criteria when selecting stock?
- How do you evaluate new suppliers or assess product batches?
- What kind of price margins do you typically work with?
- Do different buyers (e.g., in France vs. Spain) value different trust factors?
- How often do you rely on repeat buyers versus first-time transactions?

Since brokers operate in fast-moving B2B environments, these questions emphasized the informal and relational dimensions of trust, as well as cross-border price and quality dynamics.

**Marketplaces**

Focused on visual communication, branding, and consumer interaction:

- How do you present your listings (photos, descriptions, certificates)?
- Do you use sustainability messaging (e.g., second-life, $CO_2$ savings)?
- Have you seen differences in how consumers respond to “green” framing?
- Do platform policies (e.g., on Back Market) influence how you communicate?
- How do you handle customer complaints or returns?

Because these channels rely heavily on visual cues, user trust, and after-sales service, these prompts helped explore how sellers build credibility without face-to-face contact.

**Service & Maintenance Companies**

Focused on supplier evaluation, operational contribution to circularity, and communication-related bottlenecks:

- What criteria do you use when selecting suppliers for refurbished spare parts?
- How do you assess technical confidence and documentation reliability when sourcing components?
- In your view, what role does your company play in enabling circular economy practices?
- What are the most common issues that lead to delays or returns in maintenance operations?
- How could better communication improve the efficiency or adoption of used IT components?

These companies play a key role in extending device lifespans through reuse and repair, offering valuable insights into technical reliability, supplier trust, and documentation challenges.