DEVELOPMENT **OF PHYSICAL POSTAL SERVICES**

to better reflect e-commerce customer needs in both the "below 2 kg" and "above 2 kg" markets

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Submitted by Effigy Consulting and Sia Partners. Effigy Consulting is solely responsible for the content of this report.

24 November 2023

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LIST OF ABBREVIATIONS AND ACRONYMS

APAC	Asia-Pacific
B2B	Business to business
B2B2C	Business to business to consumer
B2C	Business to consumer
C2X	Customer to any entity
CAGR	Compound annual growth rate
CCAP	California Consumer Privacy Act
CEP	Courier Express and Parcel
DIY	Do it yourself
DO	Designated operator
ECOMPRO	E-commerce parcel delivery category
EMS	Express Mail Service
EU	European Union
GDPR	General Data Protection Regulation
GXG	Global Express Guaranteed (a USPS international shipping option)
OE	Office of exchange
PMI	Priority Mail International (a USPS service)
POC	Postal Operations Council
PSDEIG	Physical Services Development and E-Commerce Integration Group
SAL	Surface airlifted
SDR	Special drawing rights
SMEs	Small and medium-sized enterprises
UAE	United Arab Emirates
UK	United Kingdom of Great Britain and Northern Ireland
UPU	Universal Postal Union
US	United States of America

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EXECUTIVE SUMMARY

The aim of this research was to understand factors influencing the use of postal products for e-commerce shipments, distinguishing between weight categories above and below 2 kg. The study, based on 28 interviews, reveals outdated standards for postal parcels, especially in terms of weight, dimensions and remuneration rules. New-generation carriers are gaining market share with alternative last-mile delivery methods, such as lockers.

Remuneration rules for terminal dues no longer align with the last-mile market reality, leading to challenges for import countries. Last-mile delivery is considered both a convenience and an essential infrastructure, akin to telecommunications access to consumers. Examination of this infrastructure provides insights into consumer behaviour and data. The study emphasizes the importance of adhering to data regulations in the exchange of consumer data between operators.

The challenge of revenue distribution in the e-commerce value chain is crucial, prompting a need to review margin distribution. Surprisingly, environmental impact is not a primary concern for DOs, but the study advocates for greener logistics across the supply chain.

The research underscores the postal industry's need to adapt to evolving e-commerce demands, urging the UPU to focus on high-quality service, pricing and the development of products meeting retailer needs. While the study does not propose expanding the 2 kg limit for small packets, it identifies challenges in improving tracking and delivery times. The price of small packets, while advantageous to the origin DO and its customers, may not be as viable for the destination DO and must be supplemented to meet the demands of B2B2C operations. The interviews also highlighted the need for improvements to the rules on DO exchange processes and the UPU regulations on data privacy, protection and management.

1 BACKGROUND

The conduct of the product development and e-commerce market research, as outlined in the Abidjan Business Plan approved by the 27th Congress held in Côte d'Ivoire in 2021, was mandated to POC Committee 2 and assigned to the PSDEIG in 2022. The key objectives of the research, consolidated from originally three different studies into a single comprehensive and integrated study, were to identify ways of increasing DOs' share in the "below 2 kg" and "above 2 kg" markets, to examine the e-commerce market and provide recommendations on developing physical services, and to assess how the UPU's physical postal services portfolio could be developed to better reflect e-commerce customer needs.

The UPU Convention Manual divides postal items into those containing documents and goods. Postal items containing goods constitute a significant volume of e-commerce transactions. Competition in the postal market, especially for e-commerce delivery, is fierce and rapidly evolving. DOs are major players in the cross-border market for lightweight e-commerce items under 2 kg (i.e. small packets) and currently deliver around 70% of all cross-border shipments in this niche. However, research shows that DOs do not have the same presence in the "over 2 kg" market (ordinary surface parcels, airmail parcels, SAL parcels and ECOMPRO parcels) and that their participation is expected to further decline, to a considerable extent, in the coming years if no action is taken to redefine current products and business models.

While parcel volumes have been increasing – driven largely by the growing demand for prompt physical delivery of e-commerce transactions coupled with a surge in B2B exchanges in intermediate goods and samples – on average, the parcels market share of DOs does not seem to match that of the other players of the sector combined. According to UPU postal statistics and big data available through UPU tracking systems, developing regions do not appear to fully benefit from the current postal growth opportunities triggered by the rise in international e-commerce. Concurrently, large international e-tailers are investing in their own delivery models, such as pick-up points and smart lockers, as well as local fulfilment centres, which further reduce the need for cross-border delivery.

The predominant B2C e-commerce model used by operators to move cross-border postal items containing goods was severely disrupted by the COVID-19 pandemic, which curtailed interregional transport and labour force movement. While items could still be moved on a limited scale through cargo channels, commercial flights were grounded for an extended period of time. The situation was exacerbated by new regional trade and security-related regulations (including new tax regimes and customs requirements). Together, all of these factors intensified the long-term downward trend of letters and accelerated the long-term upward trend of postal items containing goods.

In view of the above, it was important to fully understand the underlying factors contributing to the performance differences of postal items containing goods, and to recommend changes to product features and specifications so as to ensure a better e-commerce market fit and the long-term sustainability of physical postal services. This also entails reviewing and updating the UPU product portfolio matrix to ensure clearer, simpler and well-differentiated physical services that better reflect e-commerce customer needs. In addition, it is important that DOs do not lose focus on the "over 2 kg" parcel-post market.

1.1 UPU PRODUCT TERMINOLOGY IN THIS RESEARCH

In the interviews with DOs, the research categorizes items termed "small packets" as any letter-post item weighing up to 2 kg and containing goods. This encompasses UPU products, such as letter post with goods, and other products, such as Prime Exprès.[1] The term "parcels" is used to describe parcel-post items weighing from 0 to 30 kg, including various UPU products (surface, air, ECOMPRO and EMS), and other products, such as PMI.

1.2 RESEARCH METHODOLOGY

Preliminary research: interviews with experts, DOs, customers and competitors

The methodology employed in this study relied on interviews with individuals possessing expertise in the postal ecosystem, particularly in the e-commerce market and physical postal services, including items containing goods both under and over 2 kg. These interviews facilitated a thorough market analysis, offering new insights into postal operators, their customers, competitors and other key players in the industry.

The interviews were conducted in two main phases. First, there was feedback on the postal ecosystem analysis, focusing on its geographic scope to extract opportunities and frameworks for local operations. This phase provided insights into the post-COVID-19 e-commerce environment, customer needs, SWOT analysis of DOs and competitors, key product features, supply chain factors and the current portfolio of postal services.

The second phase involved a deep-dive analysis into the specific project scope. Three scenarios were encountered during this phase, whereby experts had the required data, or could access it through their network, or (if precise data was unavailable for confidentiality reasons) they provided insights that could be extrapolated and modelled, in which case data was anonymized. Interview responses were integrated into relevant chapters to address the research questions and meet the study objectives. While the final report omits the details of the interviews, the conclusions and recommendations are based on thereon.

Data screening, consolidation and modelling

The study utilized data from various public sources, encompassing both quantitative and qualitative information, which was consolidated to generate the necessary metrics. The methodology employed a combination of extensive knowledge of the postal and e-commerce ecosystem, along with advanced data science capabilities. This approach facilitated the extraction and analysis of data from diverse sources (a list of which is provided in Annex 2), emphasizing a comprehensive understanding of the subject matter.

1.3 CARRIER SELECTION FOR THE STUDY

Selection rules

The selection of carriers for the study was based on several rules:

– Effigy's CEP market database for 2020/2021 served as the source for rankings/names;

1 Prime Exprès. *prime-posts.com.* (2023).

- The study focused on the CEP market, excluding categories such as food, same-day delivery, point-to-point delivery, pallets, freight, contract logistics, insight service, air cargo linehaul, etc.;
- The dataset specifically included volume data (not revenue) for 2020/2021, narrowed down to the B2C/C2X international inbound/outbound segment. The B2B and domestic segments were excluded to concentrate on cross-border e-commerce;
- Small packets were considered for DOs to address products for goods weighing under 2 kg.

List of DOs and carriers interviewed

The study encompassed interviews and reviews with a total of 28 operators, consisting of 16 DOs and 12 carriers spanning all UPU regions. DOs were included from all regions, and carriers were selected based on B2C/C2X parcel volumes in medium to large countries to ensure a representative sample. The list of the sample population interviewed, as well as additional information on the carriers, is provided in Annex 1.

Currencies

The currency data presented is denominated in special drawing rights and is calculated using annual exchange rates, as outlined in Annex 3. The information from 2017 to 2022 is based on annual averages, while projections for 2023 to 2027 follow a linear forecast model. The conversion of data from euros to SDR using these figures may moderate the observed changes over the specified period.

2 GLOBAL MARKET OVERVIEW

2.1 E-COMMERCE TRENDS

The growth of e-commerce, which was already expanding rapidly, was accelerated by the outbreak of the COVID-19 pandemic and ensuing global lockdowns that altered consumer behaviour by removing disincentives for online shopping through the imposition of stay-at-home rules. Trust in digital purchases increased during the pandemic, with certain goods available exclusively online. Following the pandemic, these modified consumer habits persist, particularly in view of an economically uncertain environment marked by inflation.

In 2021, global e-commerce sales reached nearly 2.79 trillion SDR, representing over 14% of total retail sales.[2] This figure is projected to grow by 78% to almost 5.00 trillion SDR by 2025, accounting for 18% of total retail sales. This growth is fuelled by evolving consumption patterns, increased Internet access and online payment solutions, especially in developing regions such as Asia-Pacific. The number of Internet users in Asia has doubled from 1.6 billion in 2015 to 3.25 billion in 2022, with an estimated 4.5 billion users by 2031.[3]

However, e-commerce growth was negative in some regions in 2022 – and for the first time in Europe, at -12% – as a result of challenges such as inflation, limited growth, recession and supply chain issues.[4] The consequences have been observed with regard to energy and commodities prices, which has had an impact on household budgets for other expenses that are considered less important. This led to a resurgence in brick-and-mortar purchases after the pandemic and lockdowns. Large economies with a substantial domestic offering can satisfy local demand, thus reducing trade with other countries, as observed in the case of Japan.

Despite regional challenges and disparities, forecasts for the e-commerce market remain positive. The market does not differentiate between postal products on the basis of weight, but rather on the basis of features, focusing mainly on:

- comprehensive end-to-end tracking, with multiple events recorded from origin to destination;
- cost-effectiveness, with good service levels;
- variety and flexibility of delivery options (home delivery, post office, parcel shops, lockers).

2 Statista. *E-commerce worldwide – statistics & facts.* (2023).
3 Statista. *ITU and national statistical offices: Number of people in Asia using the Internet. (2022).*
4 Statista. *eCommerce – Europe Report.* (2023).

As e-consumers are not particularly interested in a differentiation below and above 2 kg (for them, such a delineation does not bring any added value), some DOs tend to promote primarily their "parcel" products as the postal service for items containing goods, with their "below 2 kg" products mainly being used for letters.

Average weight of cross-border e-commerce products

Items weighing more than 2 kg constituted less than one fifth of cross-border e-commerce purchases in 2021, and those weighing less than 0.5 kg accounted for 29%.[5] This suggests that

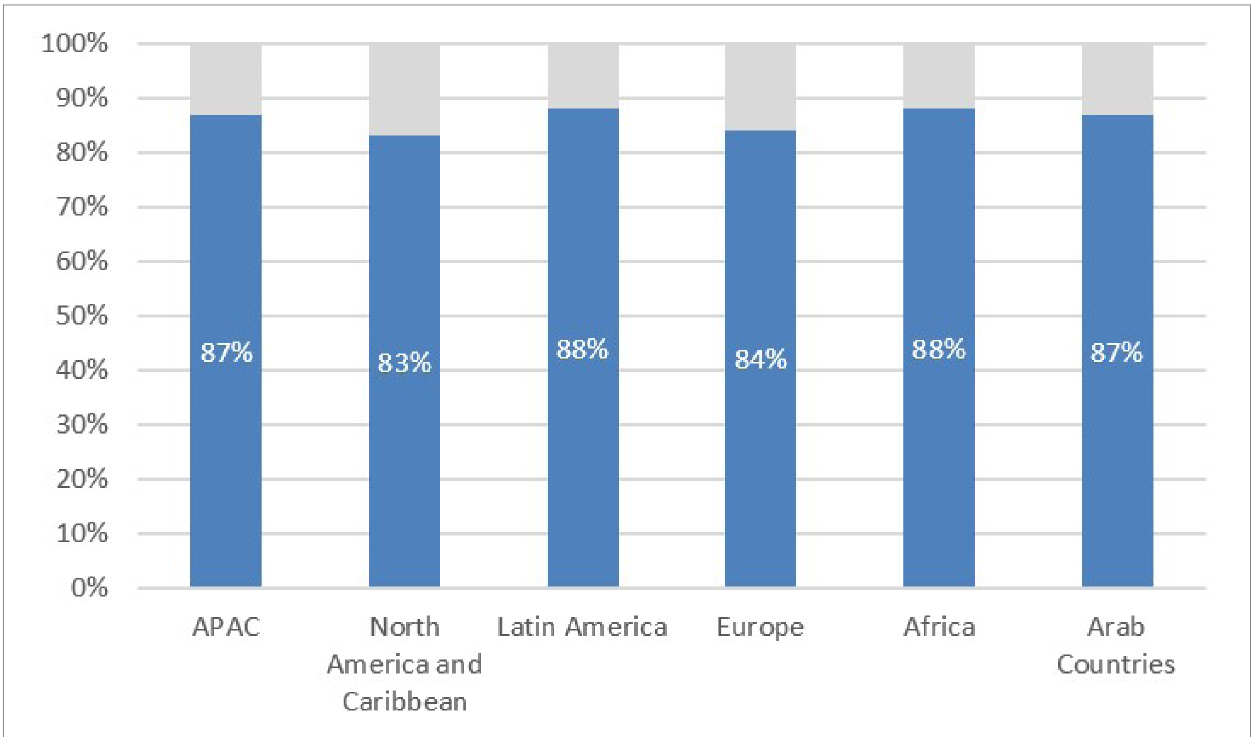

Figure 1: Proportion of items weighing less than 2 kg by region

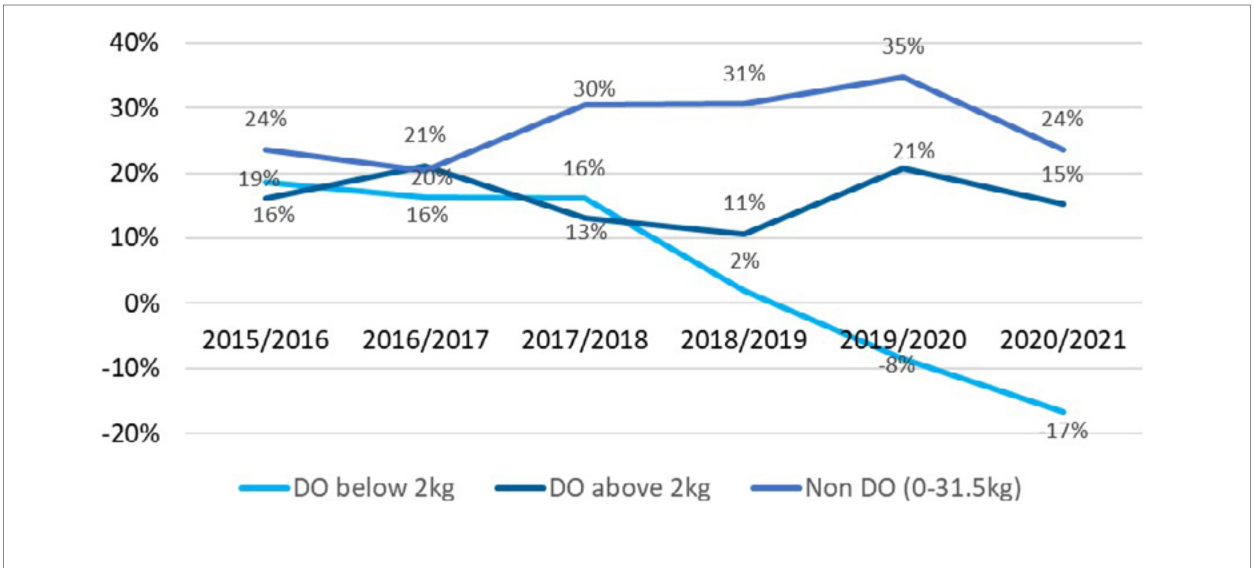

Figure 2: Evolution of DO volumes below and above 2 kg

5 International Post Corporation. *Cross-Border E-Commerce Shopper Survey.* (2021).

the most commonly used products by e-tailers fall into the small packets category, rather than the traditionally more expensive parcel category. Figure 1 illustrates the distribution of parcels, indicating the proportion weighing less than 2 kg across various regions worldwide.

Over the last three years, small packets have experienced a decline more significant than the overall market trend. During this period, the DO percentage volume for items above 2 kg has followed a downward trend similar to that for other carriers, but at a slower rate. Figure 2 illustrates the volume changes for three product categories: DO below 2 kg, DO above 2 kg and non-DO (without weight distinction).[6]

Average value of e-commerce products

The research revealed that 72% of buyers would be willing to accept a longer delivery time to reduce environmental impact.[7] While fast delivery remains a significant criterion, there is potential to explore whether consumers would be open to paying less for shipping in exchange for a longer delivery time.

2.2 E-COMMERCE BY MARKET SEGMENT

The e-commerce market is categorized into eight segments. These are as follows, with the corresponding value shown in parentheses: fashion (668 billion SDR); electronics (601 billion SDR); toys, hobbies and DIY (558 billion SDR); beauty, health, personal and household care (280 billion SDR); food (222 billion SDR); furniture (158 billion SDR); beverages (158 billion SDR); and media (144 billion SDR).[8] The chart below provides a visual representation of the market share of each segment.

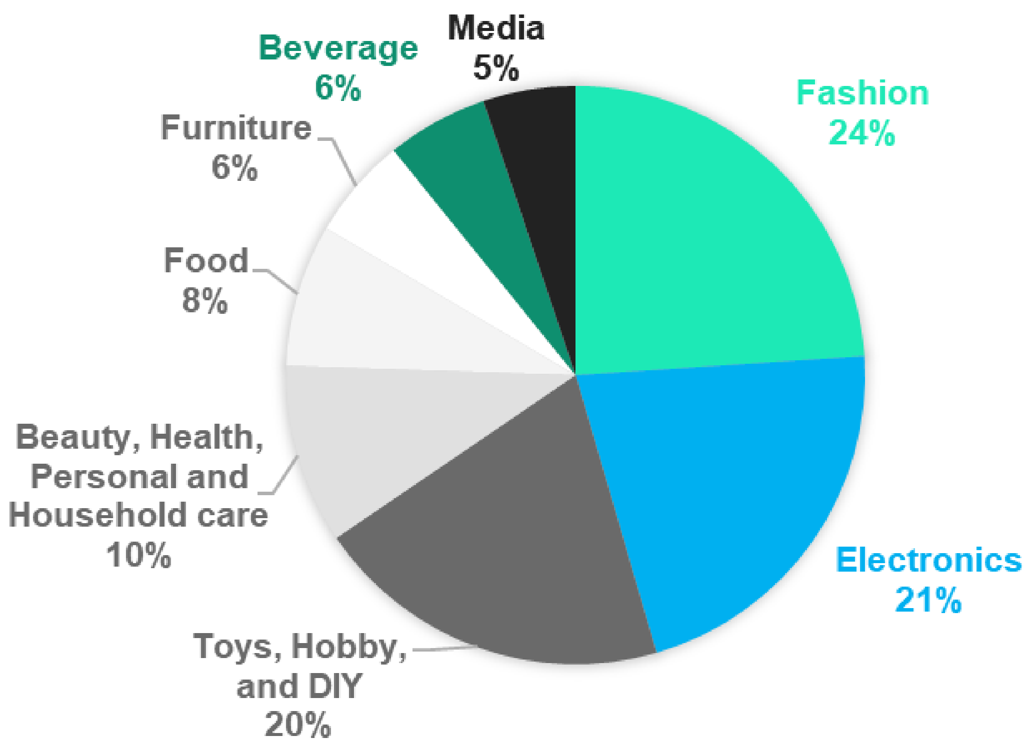

Figure 3: Market share of e-commerce segments

6 Effigy Consulting perimeter in volume (small packets and parcels) – 42 countries worldwide (42 DOs and 202 non-DOs).
7 Sia Partners. *Last mile for retailers.* (2023).
8 Statista. *eCommerce Market Data Analysis & Forecast.* (2022).

The average weight of parcels by segment can be summarized as shown in table 1.

Segment	Type of postal market	Examples
Fashion	Mainly below 2 kg	– Apparel – Shoes – Accessories
Electronics	Below 2 kg Over 2 kg	– Consumer electronics (70% of sales) – Household appliances (30% of sales)
Toys, hobbies and DIY	Below 2 kg Over 2 kg	– A set of game blocks or card games – Equipment
Beauty, health, personal and household care	Mainly below 2 kg	– Cosmetics – Cleaning products
Food	Mainly over 2 kg	– Home deliveries
Furniture	Below 2 kg Over 2 kg	– Furniture – Small decorative elements
Beverages	Mainly over 2 kg	– Bottles – Cans
Media	Mainly below 2 kg	– DVDs – CDs – Video games

Table 1: Mapping of e-commerce product segments to UPU weight classification

Fashion

Fashion stands out as the leading segment in e-commerce, projected to experience an annual growth rate of 8.8% from 2023 to 2027. The Asia-Pacific region dominates the global fashion e-commerce market, contributing over 51% of sales in value. Notably, China holds a significant share, accounting for 35% of the market. Growth is attributed to rising incomes in China, accompanied by an increasing preference for luxury fashion products.

Electronics

This segment is divided into two sub-segments: consumer electronics, which represents 70% of sales, and household appliances, accounting for the remaining 30%. This market is expected to expand at a rate of 7.3% annually from 2023 to 2027, and is currently dominated by China, which accounts for nearly 39% of the global market with sales of 233 billion SDR. After China, western Europe holds the second-largest market share, at 108 billion SDR, followed by the United States, with 104 billion SDR.

Toys, hobbies and DIY

The toys, hobbies and DIY segment is subdivided into four categories: hobbies, covering musical instruments and office supplies; toys; sports; and DIY, including pet-related and gardening products. Notably, a significant portion of this market involves heavy and bulky items. Accounting for over 20% of the total market in 2022, this segment is projected to grow at a rate of 8.5% annually from 2023 to 2027. This segment is particularly strong in North America, where it currently holds the top position among all e-commerce segments and is expected to maintain this ranking through to 2027.

Sub-segment	Type of postal market	Examples
Hobbies	Below 2 kg Over 2 kg	– Musical instruments – Office supplies
Toys	Below 2 kg Over 2 kg	– A set of game blocks or card games or a 2000-piece puzzle – A doll or game console
Sports	Below 2 kg Over 2 kg	– Clothing – Equipment
DIY	Below 2 kg Over 2 kg	– Manual gardening tools – A bag of dog food

Table 2: Mapping of e-commerce product sub-segments to UPU weight classification

Beauty, health, personal and household care

This segment, comprising essential day-to-day items that are relatively affordable, is less affected than other segments by household financial constraints.[9]

Food

The food segment is considered the most attractive in the e-commerce landscape, with a projected CAGR of 16% or higher from 2023 to 2027. This growth is attributed to the increasing utilization of supermarket offerings such as drive-through and home delivery, diminishing the significance of parcel delivery in this segment.

Furniture

The emergence of the metaverse and virtual reality is expected to further facilitate online furniture shopping, with platforms such as Pinterest and Instagram promoting design and furniture items. The furniture and design segment, constituting nearly 6% of the e-commerce market in 2022, is forecast to grow at an average rate of 11% per annum through to 2027. However, inflation and financial constraints (e.g. credit crunch) have led households to delay purchases of expensive items, such as furniture, which has had an impact on this real estate-linked segment.

Beverages

The beverages segment is divided into four sub-segments: hot drinks (16% of sales in the segment); non-alcoholic drinks (42%); alcoholic drinks (42%); and other beverages (0.2%). Although one of the smallest segments in the e-commerce market, it is projected to grow significantly at an average rate of 12% per annum. The US is expected to have the world's largest beverage market by 2027, with projected revenue reaching 128 billion SDR.

Media

The media segment accounted for 5.16% of the e-commerce market in 2022, generating global revenue of 143.77 billion SDR. Forecasts predict a CAGR of around 5% annually through to 2027. In the US, online revenue from multimedia products reached 26.43 billion SDR in 2022 and is projected to expand to a total market size of 33.1 billion SDR by 2027.

9 Auctane. *Ecommerce Delivery Benchmark Report – Resilience through recession.* (2023).

2.3 GLOBAL CHALLENGES

The e-commerce sector faces promising prospects, but is currently grappling with challenges stemming from growing inflation and economic hardship affecting both consumers and industry players, including e-merchants and delivery operators. The primary objective for these e-commerce players is to secure market share with a view to benefiting from future economic and e-commerce improvements.

Delivery operators, particularly in Europe and North America, encounter difficulties in recruiting drivers and finding reliable subcontractors for deliveries. Emerging solutions, exemplified by Amazon's delivery model, involve financial support for subcontractors. Corruption is an additional challenge in some developing countries, while market separations, such as the UK's departure from the European market, disrupt cross-border e-commerce. Geographic factors, such as difficult access to rural or remote areas, pose additional hurdles for operators. In a highly competitive delivery market, carriers face increased costs, exacerbated by the growth of the B2C segment in which delivery is often expected to be free of charge through subscription offers.

3 REGIONAL MARKET TRENDS AND COMPETITIVE LANDSCAPE

This section examines post-pandemic trends in global e-commerce and postal services. Based on a combination of primary research involving carrier interviews and desk research employing web scraping and spider crawling technologies, the study aims to comprehend customer needs in the e-commerce sector and the demands of both the “under 2 kg” and “over 2 kg” delivery markets. B2C market data, encompassing domestic and cross-border (exports and imports) e-commerce delivery, is also analyzed in this section. Figure 4 presents an overview of revenue by region from 2017 to 2027.

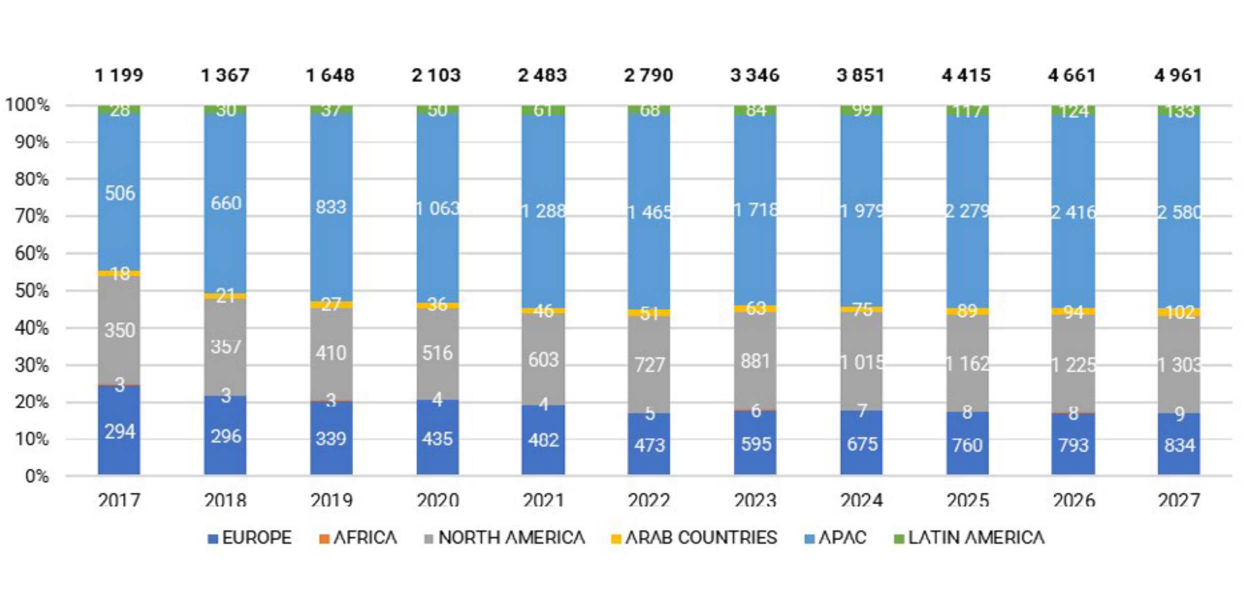

Figure 4: E-commerce revenue by region from 2017 to 2027 in billion SDR

3.1 ASIA-PACIFIC

Regional market trends and competitive landscape

The Asia-Pacific region dominates the global e-commerce market, accounting for over 50% of total sales and surpassing 1,465 billion SDR in 2022. It is projected to further increase to over 2,500 billion SDR by 2027. In 2022, the fashion segment led in terms of value, accounting for 23% of e-commerce sales. However, forecasts indicate a shift in 2023, with the electronicssegment becoming dominant and reaching nearly 30% by 2027. Other segments, such as beauty, health, personal and household care, beverages, media and toys, hobbies and DIY, are expected to decrease in terms of their share of total e-commerce, but to grow in value, with CAGRs ranging from 7–10% from 2023 to 2027. This growth trend relates primarily to items under 2 kg, including the electronics segment, of which 70% comprises consumer electronics weighing mostly under 2 kg. The region's e-commerce market is forecast to grow at an annual rate of 11% from 2022 to 2027. The region's top three markets by value are China, at over 70% of the regional market (1,036 million SDR) , Japan (122 million SDR) and Korea (Rep.) (79 million SDR).

Figure 5 provides an overview of the Asia-Pacific market based on revenue from 2017 to 2027.

Trade lanes

China is the leading global exporter of e-commerce items, dispatching over 2,600 million parcels in 2021. Hongkong Post, a significant player, experienced 16% growth in exports in 2022, with primary destinations being Europe (32%) and the US (31%). China excels in the fashion segment, with marketplaces such as Wish and Shein offering cost-effective items. China's position as a major global producer of toys is leveraged with regard to the US market, where the toys, hobbies and DIY segment leads in terms of value. Hongkong Post identifies consumer electronics and the broader IT industry as crucial export sectors.

More than half of Chinese items are imported (53%), with significant proportions coming from the US (17%) and Europe (11%).[10] Chinese consumers engaging in cross-border purchases prefer US products (38%), followed by South Korean products (28%).[11] In 2021, Japan exported over 25 million e-commerce items, primarily to China (54%) and Europe (13%). DHL Japan reported a 7% growth rate for exports in 2022, influenced by currency exchange rates. Japan's e-commerce exports grew by almost 16% annually between 2019 and 2021. On the import side, Japan received nearly 103 million e-commerce items in 2021, predominantly from China (79%) and the US (4%).

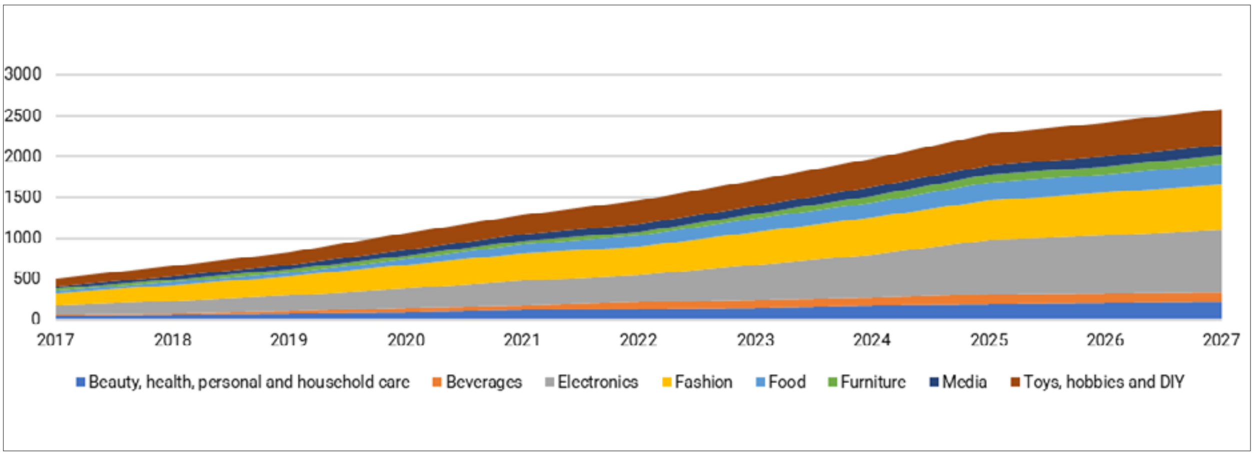

Figure 5: Asia-Pacific e-commerce revenue per segment from 2017 to 2027 in billion SDR

10 Items imported to China originate primarily from the following countries: United States of America, Thailand, Australia, Germany, United Kingdom, New Zealand, Switzerland, Canada, France, Netherlands, Romania, India, Bulgaria, Czechia, Norway, Italy, Spain, Sweden and Denmark.

11 PayPal and IPSOS. *Borderless Commerce Report.* (2022).

Australia's e-commerce market, which is relatively independent, exported over 53 million items in 2021, with 47% going to China and 13% to New Zealand. Fashion items were of particular interest. In terms of imports, Australia received over 106 million items, predominantly from China (65%) and the US (12%). Approximately 62% of Australians engage in cross-border purchases, with the US (39%), China (27%) and the UK (17%) being the primary sources. Fashion, toys and entertainment-related e-commerce constituted the bulk of cross-border items purchased by Australians.

Regional challenges

China's growing market is driven by a robust domestic economy and increasing purchasing power. The population's familiarity with online shopping is contributing to the consumption of more e-commerce products. Companies such as ZTO Express China aim to double their parcel volume within five years. The growth is predominantly urban-based, with the government investing in infrastructure development to make rural areas more accessible in the future. In Hong Kong (China), the delivery market thrives amid a growing economy and high real estate costs, pushing consumers towards e-commerce with increasing purchasing power. However, limited space poses a challenge for the delivery sector, leading to the exploration of alternative means of transportation, such as scooters or bicycles.

In Japan, a competitive electronics market stimulates innovation and diversification, particularly with regard to exports. The domestic market faces saturation, and a shortage of manpower combined with intense price competition makes consumers volatile and less loyal. Established players such as Japan Post and Yamato, with their substantial resources, have a better chance of surviving this challenging market environment.

Australia grapples with a labour shortage, especially in major cities, while remote areas pose recruitment challenges for drivers. The labour market is closely regulated, but e-commerce growth is expected to persist despite these challenges.

China

E-commerce trends in China

China is the driving force behind the Asia-Pacific e-commerce market, contributing over 70% of sales in the region in 2022 and more than 37% globally. This dominance is projected to grow, reaching nearly 72% of Asia-Pacific's e-commerce by 2027, with an expected annual growth rate of 11% from 2023 to 2027. Chinese e-commerce relies heavily on its extensive domestic market, which accounts for nearly 97% of sales in value. Cross-border e-commerce in China represented 3% of sales by value in 2022, with expectations of stability through to 2025.[12] Figure 6 provides an overview of China's e-commerce market based on revenue by segment from 2017 to 2027.

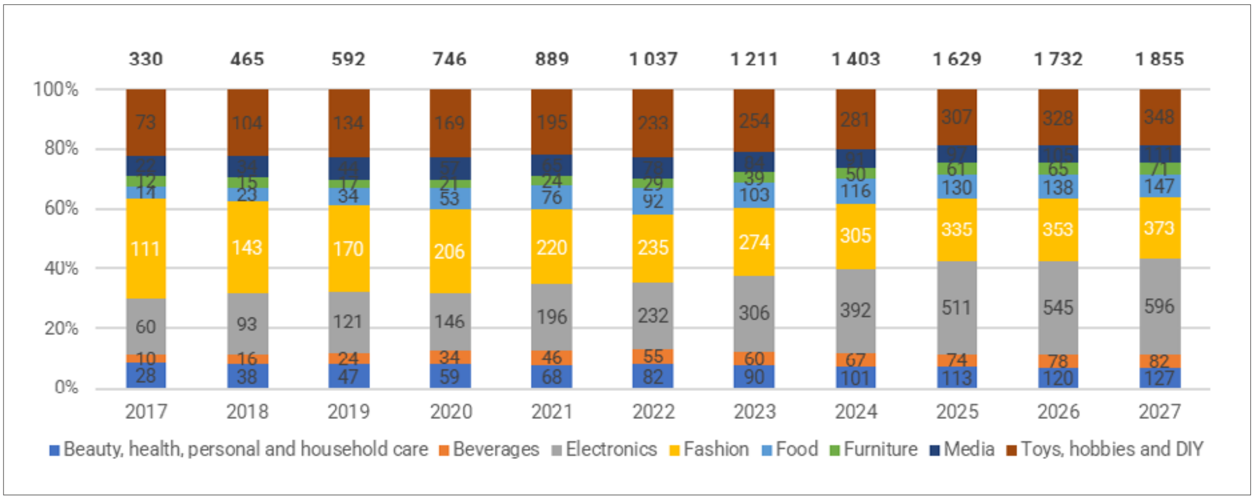

Figure 6: China's e-commerce revenue per segment from 2017 to 2027 in billion SDR

12 EcommerceDB. *Country reports.* (2020).

Competitive landscape in China

The Chinese delivery market is predominantly served by private companies, with the exception of small packets, which are exclusively managed by China Post, the postal operator. ZTO Express China excels in the cross-border segment, holding a substantial 41% market share in exports and 36% in imports. It leads the cross-border market with a 40% share by volume, surpassing competitors such as Yunda (23%) and STO (8%). Despite the market's volatility, ZTO Express competes successfully with both regional private players and China Post, the national postal operator. China Post, while maintaining 100% delivery coverage, has not engaged in any partnerships.

Postal market trends in China: parcels and small packets

The Chinese delivery market faces instability owing to stringent regulations and changing players. The parcel segment dominates in China, constituting a significant proportion of the combined small packets and parcels market in 2021. However, the proportion of import and export parcel deliveries has decreased, making way for the expansion of domestic delivery services offered by various carriers. The domestic delivery market, which has been steadily increasing since 2017, holds a 95% share of the overall parcel delivery market. ZTO Express has become a leading private player, growing at a rate of 10% annually with significant infrastructure investment.

However, China Post has seen a decline in its market share for parcels and small packets, from 17% in 2017 to 11% in 2021.[13] Parcels over 2 kg constitute 15% of the total market,[14] accounting for only 7% of China Post's business compared with 21% for private players. China Post's share in parcel processing decreased from 14% in 2017 to 10% in 2021, despite overall market growth (30% in 2021).

For intra-territory parcels, there was substantial annual growth – of 33% on average – between 2017 and 2021. However, the share held by postal services in this segment has diminished, dropping from over 14% in 2017 to 10% in 2021 in favour of private carriers. In the realm of export parcel delivery, there has been a slight increase in deliveries by postal services, with modest average annual growth of 2% from 2017 to 2021, and a more notable growth spurt of 24% observed from 2020 to 2021.

Exported items from China are becoming smaller and more affordable, as indicated by Hongkong Post. The small packets market in China has decreased significantly, experiencing negative average growth rates for both exported and imported small packets between 2017 and 2021 (-6% and -10% respectively). In 2021, the small packets market constituted only 0.7% of the total market for parcels and small packets combined, representing a substantial decline from 4% in 2017.

Hongkong Post faces competition in the domestic and import parcels market from companies such as UPS, FedEx, DHL, Aramex, Bluewave, Xpress and Ranar, while in the export parcels market it contends with competitors such as DHL, UPS and FedEx. Unlike ZTO Express China, Hongkong Post operates independently without any partners, ensuring a 100% delivery success rate for both cross-border and domestic parcels. While Hongkong Post has a significant presence in the small packets e-commerce market in China, at 17% of the total market, its influence in the larger parcel market within China is limited as a result of its relatively small size, representing only 0.5% of the Chinese population.

Japan

E-commerce trends in Japan

The Japanese e-commerce market share in the region has steadily decreased from 12% in 2017 to 8% in 2022. Japan boasts a closed market, with over 98% of e-commerce transactions occurring domestically, ranking it first globally. The mature electronics segment, while highly developed, has experienced saturation, leading to increased competition, lower prices and higher return rates. Japan Post's share in the delivery market declined from 47% in 2018 to 43% in 2021, despite market expansion. Parcels over 2 kg constitute 11% of total items in Japan but represent only 4% of Japan Post's shipments (compared to 16% for private operators). Figure 7 provides an overview of Japan's e-commerce market based on revenue per segment from 2017 to 2027.

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13 Effigy Consulting. *CEP market research.* (2012–2023).

14 IATA. Air Cargo Market Analysis. (2021).

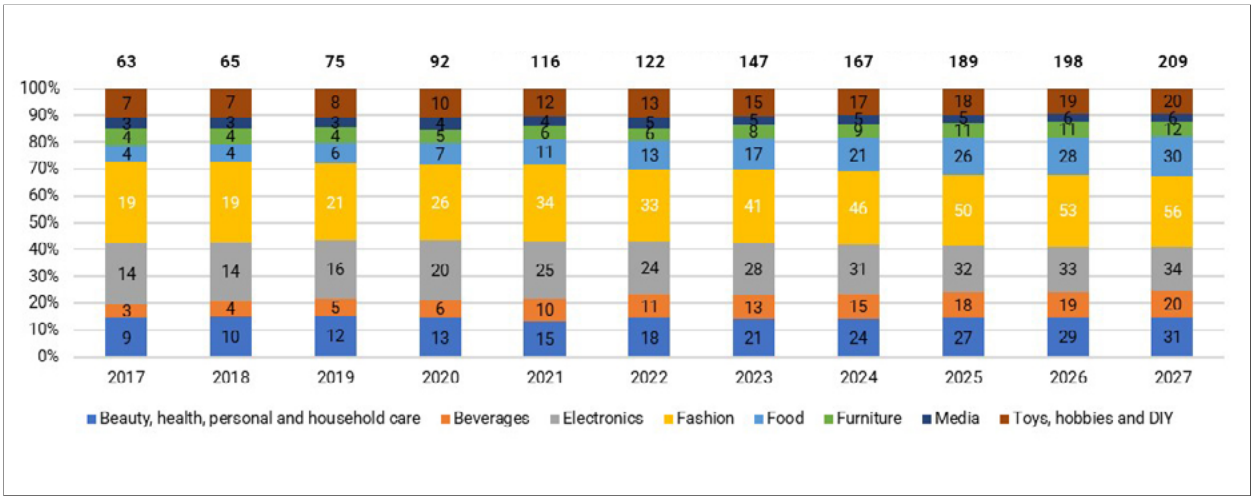

Figure 7: Japan's e-commerce revenue per segment from 2017 to 2027 in billion SDR

Competitive landscape in Japan

Yamato leads the B2C parcel delivery market in Japan with a 34% market share in volume, followed closely by Japan Post (32%) and Sagawa (27%). DHL plays a significant role in the country, holding a 14% share of the overall market. In the international express segment (covering B2B and B2C/C2X), DHL Express commands a 15% market share, making it a key player. In terms of e-commerce, DHL Express handles 13% of imported parcels and 9% of exported parcels, ranking as the third-largest postal operator for e-commerce items after Japan Post and Yamato. Other players in this space include UPS, Sagawa, FedEx/TNT and SF Express. DHL operates independently – handling all deliveries without subcontracting – and boasts state-of-the-art digital systems worldwide, ensuring efficiency in both import and export operations.

Postal market trends in Japan: parcels and small packets

The Japanese parcel delivery market, which is primarily domestic, has experienced a slight decline from 95% in 2017 to 94% in 2021, with a marginal shift towards the import market. Export items handled by Japan Post have dwindled, showing an average annual decrease of 14% from 2018 to 2020. Although there was a 21% increase in 2021 compared to 2020, this still fell short of the 2017 level. The decline in export volume is attributed to the decreasing share of the national Post, falling from 18% in 2017 to 11% in 2021. Import parcels, on the other hand, increased by an average of 11% annually from 2017 to 2021, but the share handled by domestic postal services dropped from 50% in 2019 to 43% in 2021.

The Japanese small packets market is segmented as follows: nearly 98% for domestic small packets, nearly 2% for imported small packets and a minimal share for exports. This distribution has remained consistent since 2017. The postal operator alone serves this market, with no competitors. However, the small packets market is contracting, mirroring a worldwide trend. In 2017, it constituted 18% of the total market, diminishing to 16% in 2021. This decline is attributed to a reduction in domestic small packets in 2021 and negligible growth in imported small packets.

Australia

E-commerce trends in Australia

After the COVID-19 pandemic and stringent lockdowns in Australia, nearly half of the population (49%) reported an increased frequency of online purchases. E-commerce has had a notable influence on local business and is more prominent in larger cities than rural areas. This urban-rural divide is expected to level out over time, but, at present, it has an impact on delivery times owing to operator capacity limitations and geographic challenges. As a result, Australians are increasingly inclined to purchase items locally. Figure 8 provides a snapshot of the Australian e-commerce market, showing revenue by segment from 2017 to 2027.

Competitive landscape in Australia

In Australia, FedEx holds a 4% market share in the overall B2C parcel segment, and performs particularly well in cross-border operations with a 9% share in exports and a 10% share in imports. However, Australia Post leads the cross-border

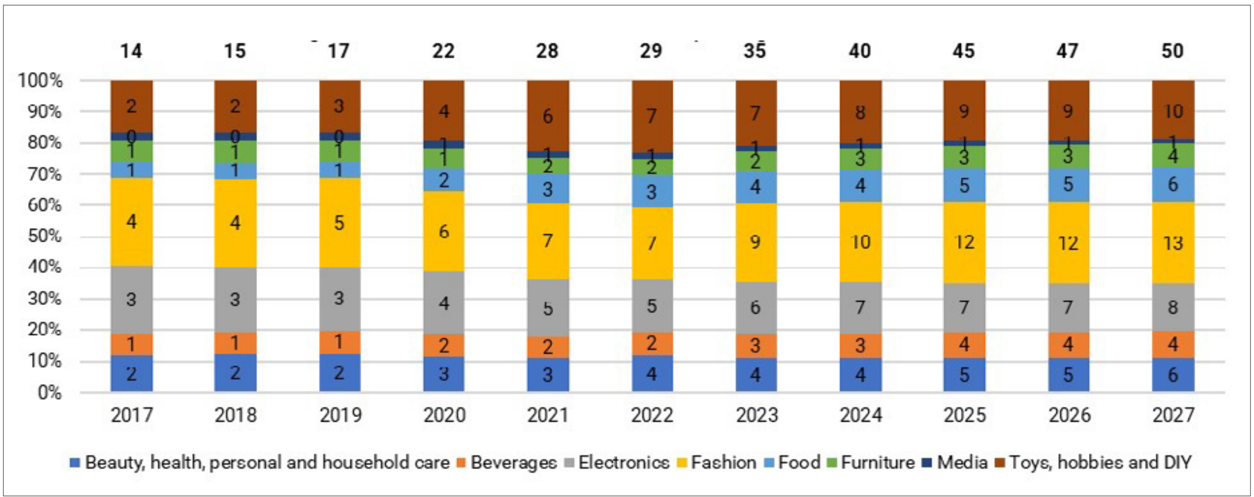

Figure 8: Australia's e-commerce revenue per segment from 2017 to 2027 in billion SDR

market with a dominant 34% share in B2C parcel exports and 40% in imports. Aramex and DHL Express secure the second and third positions respectively. FedEx views UPS as a key competitor in the Australian market and competes with local players for both driver and customer recruitment.

Postal market trends in Australia: parcels and small packets

The B2C delivery market in Australia has seen a decline in the market share of the postal operator, dropping from nearly 67% in 2018 to 59% in 2021. Parcels weighing over 2 kg constitute an average of 12% of total parcels in Australia. Private operators handle a higher proportion of these parcels, accounting for 17%, while Australia Post lags behind at 9%. In terms of parcel processing, Australia Post's share has decreased from 61% in 2018 to 57% in 2021, despite the market's robust growth (29% in 2020 and 19% in 2021).

Australia Post manages 100% of small packets, but the small packet market has faced significant challenges in recent years. In 2021, it accounted for only 5% of the total market, down from 15% in 2017. The cross-border small packet segment experienced negative average annual growth rates between 2017 and 2021, with -8% for exports and -32% for imports.

The domestic parcel market in Australia has witnessed robust growth, increasing by 19% annually between 2017 and 2021. The designated postal operator maintained a stable share, at 65%, of the domestic parcel delivery market during this period. However, in the delivery of imported parcels, its share declined from 56% in 2018 to 39% in 2021. Similarly, in the export parcel delivery segment, the postal operator's share decreased, though this decline was less pronounced than in the import segment.

Korea (Rep.)

E-commerce trends in Korea (Rep.)

The South Korean e-commerce market has displayed consistent growth, reaching a value of 43 billion SDR in 2017 and projected to hit 91 billion SDR by 2027, with a CAGR of 7% over that period. Notably, the beauty, health, personal and household care segment has been a standout performer, experiencing a CAGR of 7% and reaching 10 billion SDR in 2027 from 5 billion SDR in 2017. The beverages segment has also demonstrated steady growth with a CAGR of 16%, increasing from 1 billion SDR in 2017 to 6 billion SDR in 2027. Among the largest segments, electronics and fashion are expected to see significant growth over the same period, with projected CAGRs of 4% and 8% respectively. The toys, hobbies and DIY segment is forecast to record a CAGR of 7%, indicating ongoing growth. Several factors contribute to the success of South Korean e-commerce, including high Internet and mobile penetration rates, government initiatives supporting e-commerce, and an increasing consumer preference for online shopping. Figure 9 illustrates an overview of South Korean e-commerce market revenue by segment from 2017 to 2027.

Competitive landscape in Korea (Rep.)

The postal service market in Korea (Rep.) is fiercely competitive, featuring major players such as

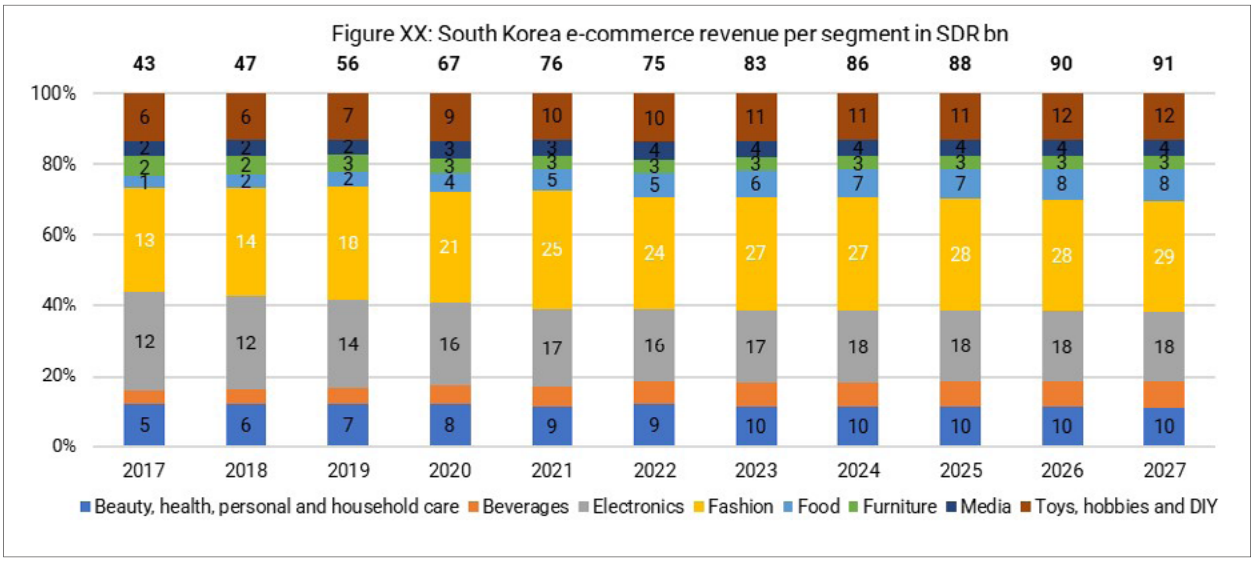

Figure 9: Korea (Rep.) e-commerce revenue per segment from 2017 to 2027 in billion SDR

Korea Post, CJ Logistics and Hanjin Transportation, alongside newer entrants such as Coupang. This competition has prompted a focus on service enhancement, including expanding delivery networks, offering convenient pick-up options and adopting advanced logistics technologies. Challenges include high infrastructure and labour costs, regulatory barriers limiting foreign entry, and demand for faster delivery times driven by e-commerce growth. While new players, including Qoo10 and Amazon, dominate international e-commerce, they remain potential customers for postal services. B2B growth is steady, and the pandemic-induced surge in demand for delivery may return to normal following the pandemic, with B2C volumes shifting towards B2B2C.

The pandemic caused a marked increase in demand for delivery staff, owing to the growth in e-commerce transactions, but automation and artificial intelligence could now have an impact on labour demand. Out-of-home delivery flourished a few years ago, but now seems to be less prevalent as items are increasingly dropped in front of the door. The strengths of the South Korean delivery market lie in fast service, excellent customer care and streamlined processes via mobile applications.

3.2 LATIN AMERICA AND THE CARIBBEAN

Regional market trends and competitive landscape

E-commerce is experiencing robust growth in Latin America, with significant progress in digitalization, Internet access and mobile payments. The region witnessed a nearly twofold increase in e-commerce value from over 50 billion SDR in 2019 to almost 96 billion SDR in 2022. Projections indicate 12% annual growth in regional e-commerce between 2023 and 2027, with Brazil and Argentina expected to record the world's fastest e-commerce sales growth from 2023 to 2026, albeit starting from a lower initial volume than the Asia-Pacific region. Despite these impressive growth rates, Latin America will continue to lag behind the Asia-Pacific region, North America and Europe, with the APAC market projected to be 14 times larger than Latin America by 2027.

The electronics segment dominates the Latin American e-commerce market, accounting for nearly 35% of total e-commerce in 2022. The fashion and beauty, health, personal and household care segments follow, with shares of 17% and 12% respectively, with these segments

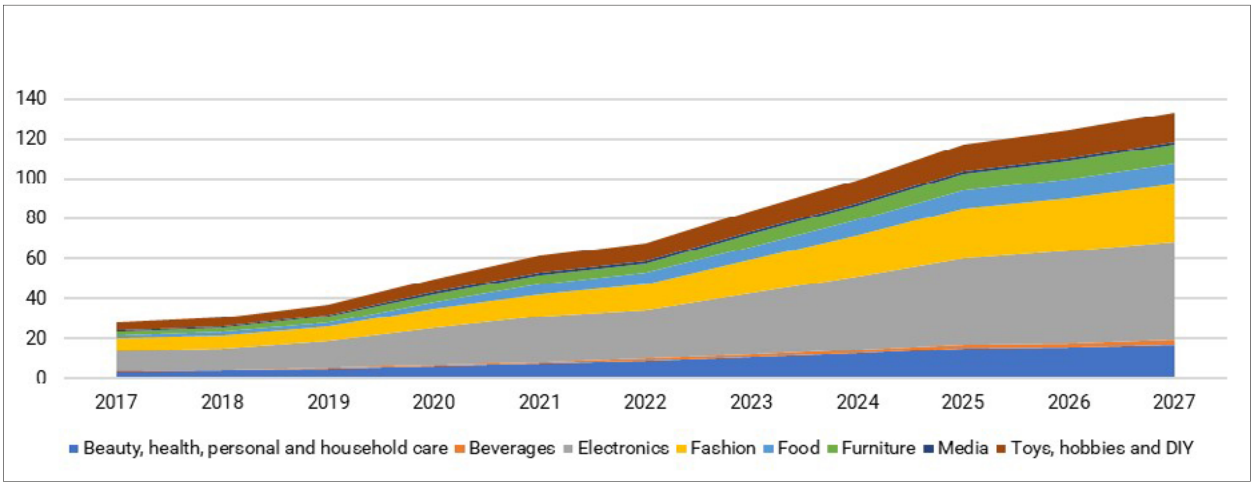

Figure 10: Latin American e-commerce revenue per segment from 2017 to 2027 in billion SDR

typically involving items under 2 kg. The region's e-commerce market is expected to remain stable, with the breakdown by segment relatively unchanged by 2027. In 2027, electronics will retain the top position, followed by fashion and beauty, health, personal and household care, with toys, hobbies and DIY in fourth place. The beverages and media segments, which are still in the early stages of development, each represent less than 3%.

Brazil leads the e-commerce market in this region, with a value of 30 million SDR, followed by Mexico with 27 million SDR and Chile with 6 million SDR. Figure 10 provides an overview of the Latin American e-commerce market based on revenue by segment from 2017 to 2027.

Trade lanes

Brazil exported 938,000 e-commerce items in 2021, primarily to Europe (31%) and the US (27%). In terms of imports, Brazil received 9 million items in 2021, predominantly from China (73%). The Brazilian e-commerce market is driven by electronic products (35% in 2022, estimated to reach 38% in 2027) and fashion items (18% in 2021), with high growth rates anticipated in these segments. Imports from China have surged, facilitated by platforms such as Shopee, Cainiao and AliExpress. A study by PayPal and Ipsos reveals that 72% of Brazilian respondents engaged in cross-border purchases in 2022, with clothing (43%), cosmetics (25%) and consumer electronics (21%) being popular choices.

Mexico maintains a substantial share of cross-border e-commerce, which is projected to remain at 6% in 2025. The US is the primary export partner, receiving 60% of Mexico's nearly 14 million exported items in 2021, with Europe accounting for 29%. UPS Mexico notes that exports, primarily comprising documents and small items, are growing moderately at 3%. In terms of imports, Mexico received over 43 million items, with 56% originating from China (up by a notable 17%). The survey by PayPal and Ipsos revealed that 71% of Mexicans engage in cross-border shopping, with the US (59%) and China (43%) being popular sources. Fashion emerges as the leading cross-border e-commerce category, accounting for 46% of Mexican consumers' purchases.

In Barbados, imports of parcels and small packets under 2 kg grew by an average of 28% annually from 2017 to 2019. Parcels over 2 kg recorded a notable increase (of 36%) from 2017 to 2018, but then declined by 24% between 2018 and 2019. This decline is attributed to a lack of airlift capacity. B2C parcel imports exhibit seasonality, with peak demand during holidays or at the start of the school year. The volume of exports remained relatively stable and low, with a drastic decrease in 2019 owing to a persistent structural trade imbalance. The COVID-19 pandemic had a further impact on parcel delivery, leading to a shift in volumes to DHL co-loading.

Regional challenges

E-commerce is experiencing significant growth in Brazil, with promising future prospects. However, global economic uncertainties and inflationary pressures may affect these forecasts. The rapid expansion of e-commerce has led to capacity challenges and intensified competition among carriers, particularly in urban areas, resulting in decreased revenue per parcel. To address last-mile delivery issues, new solutions (including crates, alternative collection points and lighter urban delivery vehicles) are being introduced.

The Brazilian parcel market is highly fragmented and intensely competitive, with the postal operator present throughout the country. In Mexico, e-commerce is a burgeoning market and a crucial economic driver. Challenges include a shortage of drivers, leading to an unstable environment with small transporters entering and exiting the market. This volatility allows non-compliant companies to evade labour taxes and engage with customers, distorting legitimate delivery operators' prices.

While delivery to remote and low-density areas remains challenging, it presents a significant growth opportunity. Mexico's e-commerce is closely tied to the US, which is a key partner, and potential customs sanctions by the US could have an impact on imports into Mexico.

The Caribbean presents a unique market that is influenced by factors such as population fluctuations, reliance on passenger aircraft and global e-commerce trends. Limited air transport availability is a major concern. Successfully delivering to all addresses poses a challenge, but holds the potential for e-commerce growth and market share expansion.

Brazil

E-commerce trends in Brazil

Brazil is a key driver of the Latin American e-commerce market, accounting for nearly 32% in 2022, down from 44% in 2017. Despite a 10% increase in inflation from 2021 to 2022,[15] restored buyer confidence and an upward e-commerce trend indicate potential opportunities for e-tailers, suggesting a stronger economy. In January 2023, inflation remained at 5%.

The e-commerce market experienced robust growth of 38% between 2020 and 2022, notably propelled by the entry of Shopee (a Chinese online marketplace). Shopee's aggressive efforts to increase its volumes, at approximately 1 million items per day, have contributed to rapid growth in demand for Chinese imports. In the domestic market, the electronics (37%), fashion (20%) and beauty, health, personal and household care (16%) segments have been significant growth drivers. Regionally, these trends are prompting delivery players to enhance their offerings for items over 2 kg. Brazil's e-commerce is primarily intra-territorial, with a relatively low share of cross-border transactions, which reached 3% in 2022 and is estimated to increase to 6% by 2025. Figure 11 provides an overview of Brazil's e-commerce market based on revenue by segment from 2017 to 2027.

Competitive landscape in Brazil

The B2C parcel delivery market in Brazil is dominated by the national post office (Empresa Brasileira de Correios e Telégrafos – Correios), which holds a substantial 47% market share, followed by Meli Logistics (Mercado Libre's delivery service) at 22% and Loggi at 9%. In cross-border parcels, excluding the domestic segment, Correios maintains a leading position with 47%, followed by

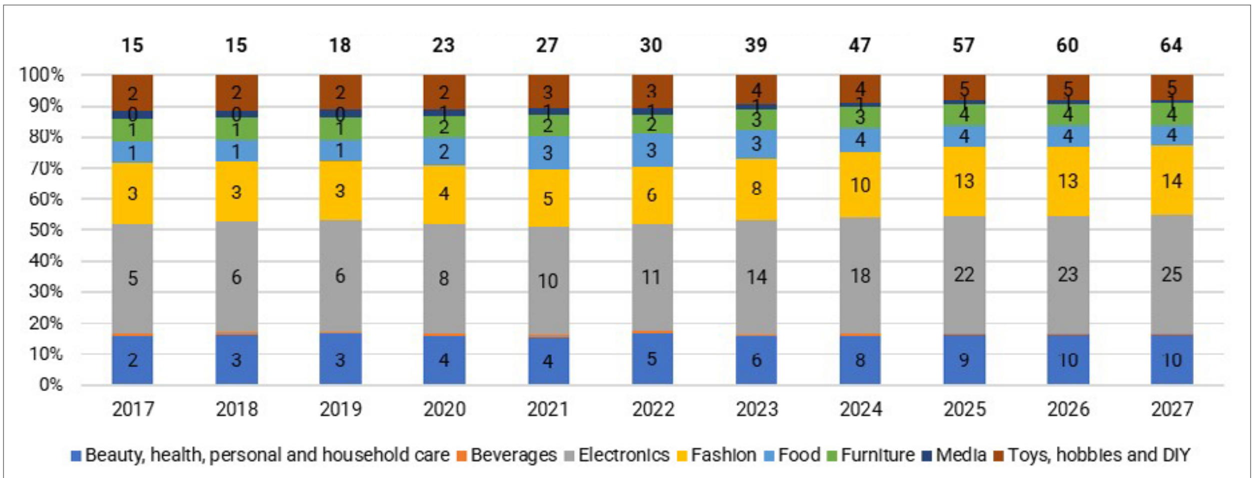

Figure 11: Brazil's e-commerce revenue per segment from 2017 to 2027 in billion SDR

15 Trading Economics. *tradingeconomics.com.* (2023).

Total Express at 35% and Rapidão Cometa (FedEx) at 6%. Meli Logistics, affiliated with Mercado Libre, holds approximately 5% of the B2C market share. In the domestic B2C segment, Correios commands nearly 50% of the volume, followed by Meli Logistics. Key competitors in this segment include Loggi, Total Express, Sequoia and Jadlog.

For imports, Meli Logistics contends with various players, including Correios, Total Express, FedEx, DHL, Braspress, UPS, Patrus, Azul Cargo Express and Jadlog. Chinese platforms, including Shopee, Cainiao and AliExpress, have also entered the Brazilian import market. Export services are primarily managed by integrators such as DHL, FedEx, UPS, Correios, Braspress and Total Express. Meli Logistics aims to expand its presence in this market and currently holds a market share of around 1%. The competitive landscape is intensifying, with major e-tailers such as Amazon and Magalu developing their own delivery services, which further diversifies delivery standards.

Postal market trends in Brazil: parcels and small packets

The B2C delivery market, fuelled by e-commerce growth, is undergoing changes in Brazil. Owing to fierce competition, the Brazilian postal operator, Correios, has seen its share in the parcel delivery market fall from 46% in 2018 to 30% in 2021, despite the market's robust expansion and remarkable 25% annual growth from 2017 to 2021. Correios' share of e-commerce parcel handling has consistently diminished since 2018, declining from 46% in 2018 to 30% in 2021. However, despite losing market share, the postal operator handles an increasing volume of parcels, experiencing a growth rate of 13% per annum from 2017 to 2021.

Parcel delivery in Brazil is predominantly driven by the domestic market and is experiencing slight growth. In 2018, the domestic segment constituted 96% of the overall Brazilian parcel delivery market, and this proportion has remained relatively stable. Despite a notable increase in the volume of parcels handled by the Brazilian postal service (with 13% annual growth between 2017 and 2021), the postal service's share in the total parcel market is gradually declining across all segments, including domestic, export and import parcels. Specifically, the national postal operator's share in delivery of domestic e-commerce parcels decreased from 47% in 2018 to 30% in 2021. In terms of export and import, the postal service's share also contracted, from 21% to 19% and 23% to 21% respectively, from 2018 to 2021. Meli Logistics notes that Correios dominates various market segments, both domestic and international, while observing a trend toward lighter parcels and increased reliance on private carriers by major Chinese marketplace Shopee.

Mexico

E-commerce trends in Mexico

Mexico holds the position of the second-largest e-commerce market in Latin America, contributing to 29% of the region's revenue. This status is expected to persist until 2027. From 2022 to 2027, the food segment is anticipated to exhibit robust growth at a rate of 20% per annum, making it likely to surpass the fashion segment by 2027. Conversely, the media segment is expected

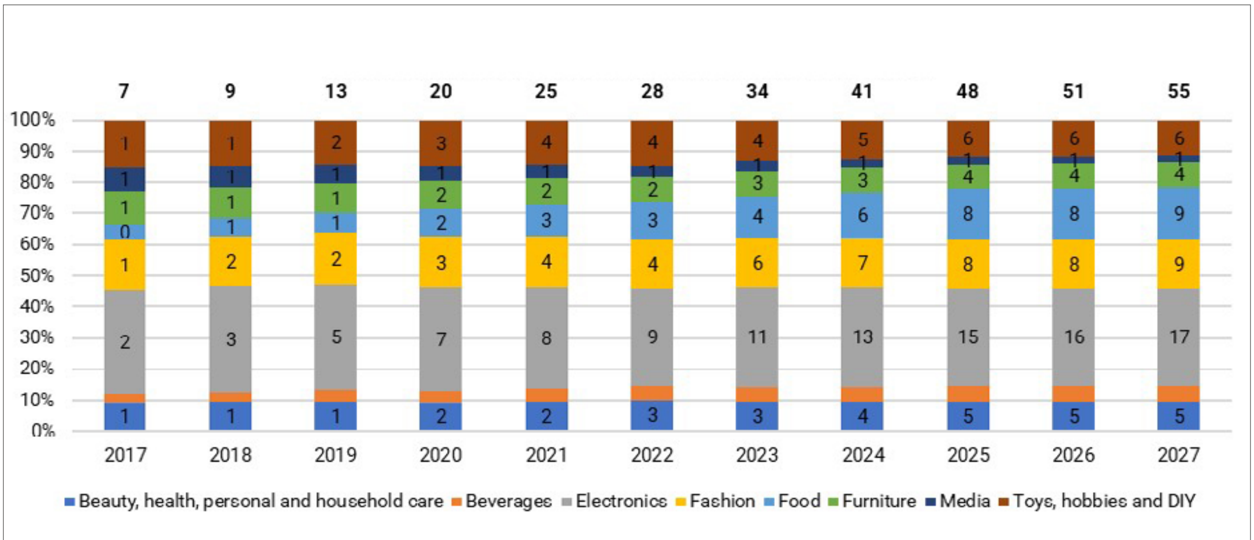

Figure 12: Mexico's e-commerce revenue per segment from 2017 to 2027 in billion SDR

to decline, with negative growth forecast from 2023 to 2027. Despite post-pandemic economic difficulties in Mexico, consumer confidence is gradually recovering, although individuals remain cautious about their savings.[16]

Figure 12 provides the e-commerce market overview in Mexico, depicting revenue by segment from 2017 to 2027.

Competitive landscape in Mexico

In the Mexican parcel delivery market in 2021, Meli, the leading e-commerce and payment ecosystem in Latin America, held the dominant position with a 21% market share. SCM followed closely with 15%, and Amazon secured a 14% share. However, when considering only cross-border parcels, the dynamics shift. SCM emerges as the leader in terms of market share by volume, commanding 24%. Estafeta claims the second spot with a 16% share, and DHL Express secures the third position with 14%.

Postal market trends in Mexico: parcels and small packets

Mexico's postal service plays a minor role in the delivery of parcels and small packets, overseeing only 6% of all deliveries in 2021. This marks a substantial decrease compared to 2018, when the postal service managed 19% of parcel and small packet transit, encompassing letters.

Analysis of the distribution of Mexico's e-commerce parcel delivery confirms the integration thereof with cross-border e-commerce. While the domestic market prevails, the proportion of imported e-commerce items delivered was 11% in 2020, which decreased to 9% in 2021. There was a decline in cross-border trade in 2021, with export parcel delivery representing 5%, down from 2020.

The postal operator, while active in the small packets market, saw its market share decline from nearly 20% in 2018 to 8% in 2021. In 2021, it handled 33% of domestic items, 45% of small packets for export and 83% of imported small packets, despite the market experiencing a decline of 24% annually from 2018 to 2021. These proportions have consistently decreased since 2017.

Argentina

E-commerce trends in Argentina

Argentina, the third-largest economy in the region, contributed 6% to total regional e-commerce in 2022. Despite strong anticipated growth in the coming years, with a projected annual increase of 13% between 2023 and 2027, Argentina's share of regional e-commerce is expected to remain at 6% through to 2027. Notably, Argentina stands out as one of the Latin American countries with a significant portion of cross-border e-commerce, estimated to be 5% in 2023. This cross-border trade is largely driven by exchanges with key partners, primarily China and Brazil.[17] Figure 13 provides an overview of Argentina's e-commerce market based on revenue per segment from 2017 to 2027.

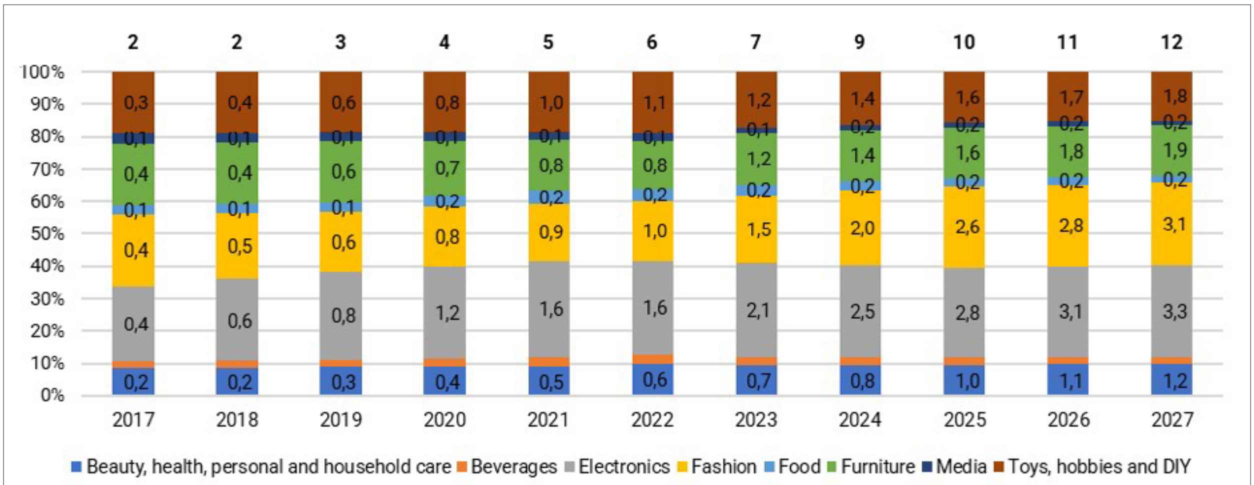

Figure 13: Argentina's e-commerce revenue per segment from 2017 to 2027 in billion SDR

16 Ipsos for PayPal. *The great pivot in global eCommerce.* (2021).
17 BNP Paribas. *Trade Solutions.*

Caribbean

Regional trends

E-commerce in the Caribbean remains relatively minor, currently constituting less than 1% of the North American e-commerce market and with this share expected to decline in the future. Although the sector is experiencing growth, the impact of e-commerce is primarily on imports and is characterized by seasonality. The population of Barbados, for instance, swells during peak seasons when families residing abroad return to their secondary homes on the island. Import levels generally exceed exports in most Caribbean countries. In terms of product segments, electronics leads the way, comprising 40% of the e-commerce market in 2022, followed by fashion at 28%, and beauty, health, personal and household care at 12%. Figure 14 provides an overview of the Caribbean e-commerce market (Cuba, Dominican Republic, Haiti, Jamaica and Puerto Rico) based on revenue per segment from 2017 to 2027.

Regional competitive landscape in the Caribbean

The Caribbean presents a unique landscape for e-commerce, characterized by its small size and a higher volume of imports than exports. The market is witnessing the emergence of new competitors, including international carriers such as FedEx, UPS, DHL, AmeriJet and national postal services. Despite the limited number of providers, there is a proliferation of services catering to small businesses. One-stop-shopping companies have gained popularity by offering mailboxes in the US to store ordered goods, which are then shipped in bulk to Barbados and across the Caribbean. This strategy helps to mitigate international shipping costs for individual items. Over the past five years, the number of companies offering such services has surged from less than 10 to an estimated 80–100.

3.3 NORTH AMERICA

Regional market trends and competitive landscape

North America is a major player in global e-commerce, contributing 26% to the global market and ranking second after the Asia-Pacific region. The US is the primary driver, accounting for over 93% of North America's e-commerce. When combined with Canada, this figure reaches 99%. The toys, hobbies and DIY segment dominates the market, accounting for 25% of North American e-commerce, followed by the fashion and electronics segments at 22% each (although the latter declined to 16% in 2022).

Projections indicate 10% annual growth in e-commerce value between 2023 and 2027. However, the United States Postal Service (USPS) suggests a 2.5% volume contraction in the total market, attributed to high inflation and a resurgence of in-store shopping. The electronics market appears to be reaching maturity, with modest 4% annual growth expected from 2023 to 2027. By 2025, the food segment is forecast

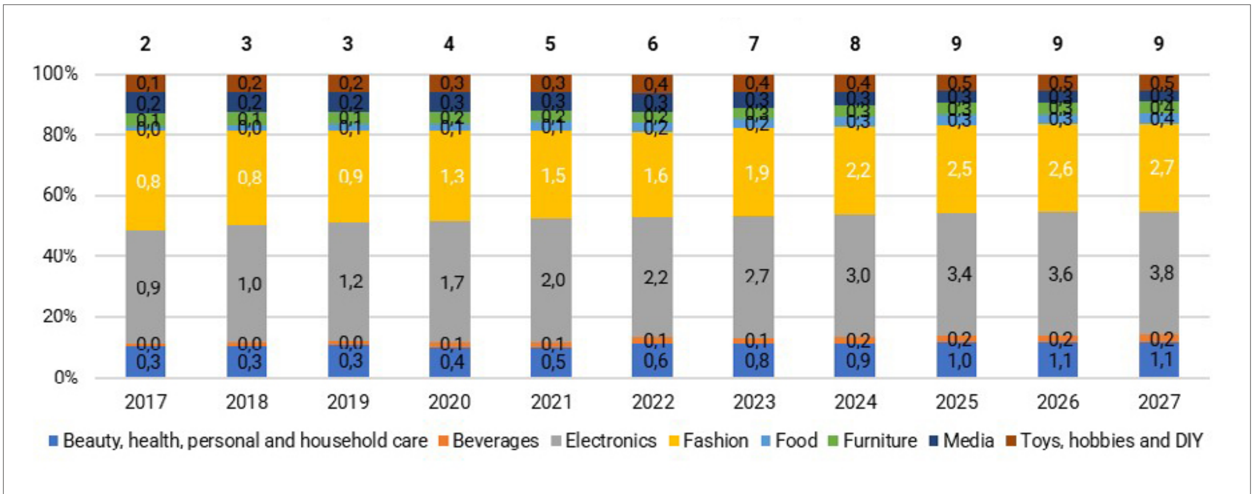

Figure 14: Caribbean e-commerce revenue per segment from 2017 to 2027 in billion SDR

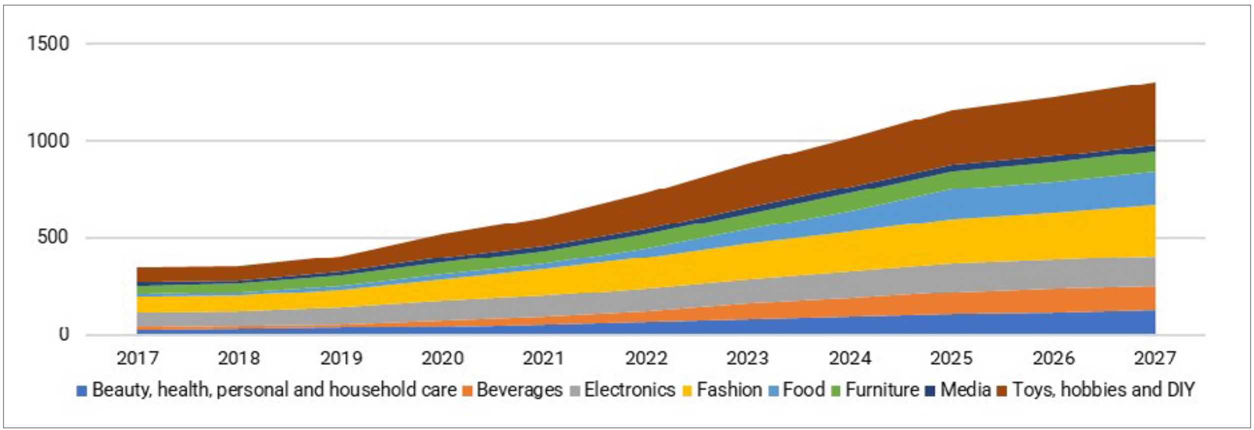

Figure 15: North American e-commerce revenue per segment from 2017 to 2027 in billion SDR

to surpass electronics, exhibiting remarkable 24% annual growth, while the beverage segment is poised for nearly 15% annual growth over the same period. Despite this, the toys, hobbies and DIY segment is expected to maintain its lead, growing at a rate of 10%.

In both the US and Canada, Amazon holds the top position, with a 38% market share in the US as of June 2022. Walmart secures the second spot in both countries, claiming a 6% market share in the US in June 2022.[18] Apple follows closely in third position in the US, with a 4% market share. In Canada, Costco occupies third place. Figure 15 offers an overview of the North American e-commerce market based on revenues from 2017 to 2027.

Regional challenges

The parcels market is undergoing significant changes due to the rise of e-commerce, leading to increased competition and altered dynamics among players. Large retailers are entering the market with self-service delivery options. The shift from B2B to e-commerce has transformed the landscape. The US e-commerce sector appears somewhat autonomous, yet inflation is having an impact, raising product and delivery costs. Liner transportation and air capacity shortages are contributing to price hikes, and recruiting human resources is becoming challenging.

USPS and UPS seem relatively unaffected owing to their direct employment models. The decline in traditional mail and e-commerce growth is a driving force for change. USPS identifies this decline as a major threat, and is striving to maintain widespread six-day-a-week delivery. Canada faces challenges in its extensive e-commerce market, with regard to remote locations, weather-related obstacles and high costs for last-mile delivery. Intense competition within the domestic market prompts demand for better service quality, competitive rates and flexible delivery options. Canada Post is addressing this by installing parcel lockers for added flexibility.

Trade lanes

The US is the world's second-largest exporter of e-commerce parcels, with 29% of exports going to Europe and 22% to China. UPS notes fluctuations tied to exchange rates. In Europe, fashion dominates (30%), while in China, electronics, fashion and beauty, health, personal and household care have equal weight (around 22%). USPS supports exports through specific channels, and shipping costs are crucial.

Canada exported over 38 million e-commerce parcels in 2021, primarily to the US (53%) and China (13%). Exports, facilitated by Canada Post, include pharmaceuticals, apparel, cosmetics and other items under 2 kg. Canada imports four times more than it exports, with 49% from China and 37% from the US. Around 63% of Canadians engage in cross-border shopping, mainly from the US (58%) and China (27%). E-commerce growth in Canada, driven by a robust economy, attracts investment, especially from US retailers expanding cross-border offerings. Canada's favourable location, infrastructure and level of Internet development make it appealing for domestic and international e-commerce.

18 Insider Intelligence. *The evolution of livestreaming shopping in China and what it means on a global scale.* (2021).

United States of America

E-commerce trends in the US

The US dominates North American e-commerce, contributing over 90% of its total value. Cross-border trade within US e-commerce is relatively low, accounting for less than 3% of the total market. The US has achieved a certain level of autonomy, meeting local demand with its domestic offerings and reducing dependence on imports.[19] In comparison with other countries in the study, only 41% of Americans engage in cross-border purchases, which is a significantly smaller proportion than that observed in Brazil (72%) and France (64%), for instance. Despite this, the US leads in terms of volume of e-commerce item imports, driven by a large population seeking low-value products. Figure 16 provides a comprehensive overview of the US e-commerce market based on revenue per segment from 2017 to 2027.

Competitive landscape in the US

The dominant players in the US cross-border e-commerce market are USPS (55%), FedEx Express (18%), UPS (15%) and DHL (12%). Other entities, such as freight forwarders and consolidators, also play a role, utilizing regional carriers such as LaserShip/OnTrac for imports. In the export segment, the significant players are freight forwarders, consolidators and extraterritorial offices of exchange with direct agreements with foreign Posts.

UPS holds over 28% of the export parcel market, while USPS claims 26%. In imports, USPS takes a substantial lead with 64%, surpassing UPS at 11%. In the domestic market, UPS holds 22%, with FedEx and USPS following at 15%. Venture-backed new entrants are emerging in the last-mile delivery sector.

In the B2C market, Amazon leads with a 24% market share, followed by UPS (22%) and USPS (19%), as of 2021. Amazon, the world's largest marketplace, influences carrier choices and is expanding its delivery fleet. UPS maintains independence from Amazon, focusing on customer-centric strategies.

USPS collaborates with integrators for last-mile delivery, enhancing its service options. Despite constraints that favour US air carriers, USPS is confident and emphasizes its strengths, including its well-optimized transportation network, delivery operations and investment in modernization. With over 640,000 employees, USPS is the largest US employer, providing universal service to diverse regions and aiming to extend delivery to seven days. USPS remains committed to reliable and affordable mail and item delivery for businesses and consumers nationwide.

Postal market trends in the US: parcels and small packets

The significance of USPS in the overall parcel and letter market in the US has diminished, dropping from nearly 34% in 2017 to 22% in 2021. This decline is evident in both the small packets segment (in which USPS is the sole player) and the proportion of parcel deliveries handled by the DO,

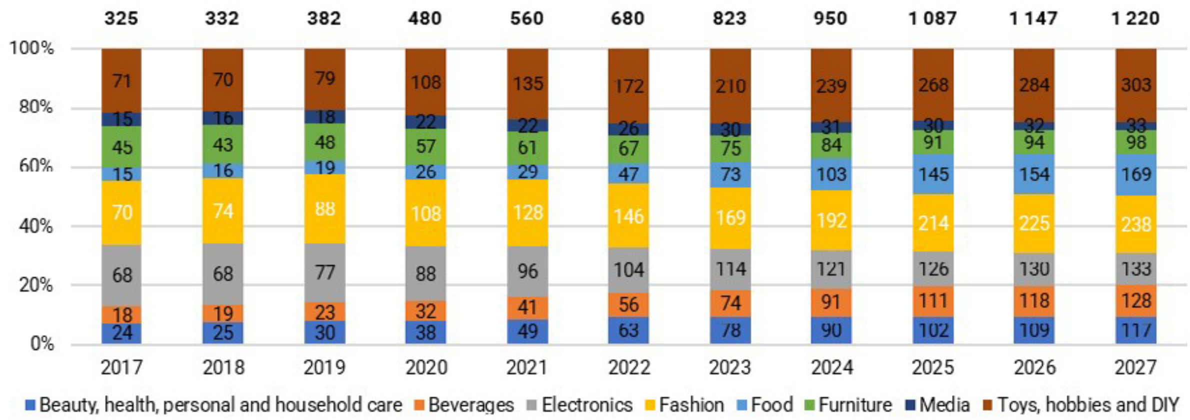

Figure 16: US e-commerce revenue per segment in billion SDR

19 Based on interviews conducted with operators.

which fell from 26% in 2017 to 19% in 2021 due to heightened competition. The parcels market is expected to experience 18% annual growth between 2017 and 2021.

On average, parcels over 2 kg account for 15% of total parcels and small items in the US, representing only 8% of USPS' parcel business, compared with 20% for private players. The weight of small items, especially in imports, has increased notably since 2020, with a 46% rise in 2021 and a subsequent 17% increase in 2022. While the average weight of USPS items decreased in 2020 and 2021, there was a slight increase in 2022 for both imported items (3%) and exported items (5%). In contrast, UPS, a private competitor, contends that items are becoming lighter and smaller.

In the United States, USPS plays a significant role in parcel transport and delivery, handling 64% of imported parcels, routing 25% of export parcels and managing 15% of domestic parcel deliveries in 2021. The USPS share in cross-border parcels has increased, while slightly decreasing for domestic services. USPS experienced substantial growth in the number of parcels transported in 2020, particularly in the delivery of exported parcels, which saw an 80% surge. From 2017 to 2021, USPS witnessed a 12% annual increase in the number of parcels from imports. Despite this growth in inbound items to the US, USPS notes a decline in overall inbound volume to the US postal network, particularly in postal mail.

The entire small packets market in the United States is managed by USPS, but the small packets segment as a proportion of total items (parcels and small packets) has significantly declined. In 2017, USPS accounted for 11% of this market, with this figure decreasing to 3% in 2021. The small packets segment breaks down into 40% imports, 14% exports and 46% for the domestic market. Since 2019, the small packets segment in the US has faced challenges and experienced negative growth rates each year, in contrast to the parcel segment, which saw an increase during the same period. Notably, in 2020, both domestic and export items witnessed significant growth, with increases of 37% in domestic items, 35% in export items and 21% in imported items.

Canada

E-commerce trends in Canada

Canadians' online shopping has surged, despite economic uncertainties following the COVID-19 lockdowns and current inflation concerns.[20] In 2022, the breakdown of e-commerce segments differed from the US, with fashion and toys, hobbies and DIY leading at 25% each, followed by electronics (21%), furniture (7.15%), food (3%) and beverages (2%). Although the food and beverage segments are expected to grow, they will remain marginal in the e-commerce market. Cross-border exchanges, comprising 3% of the market, are primarily from China and the US. Figure 17 outlines Canada's e-commerce market revenue by segment from 2017 to 20 27.

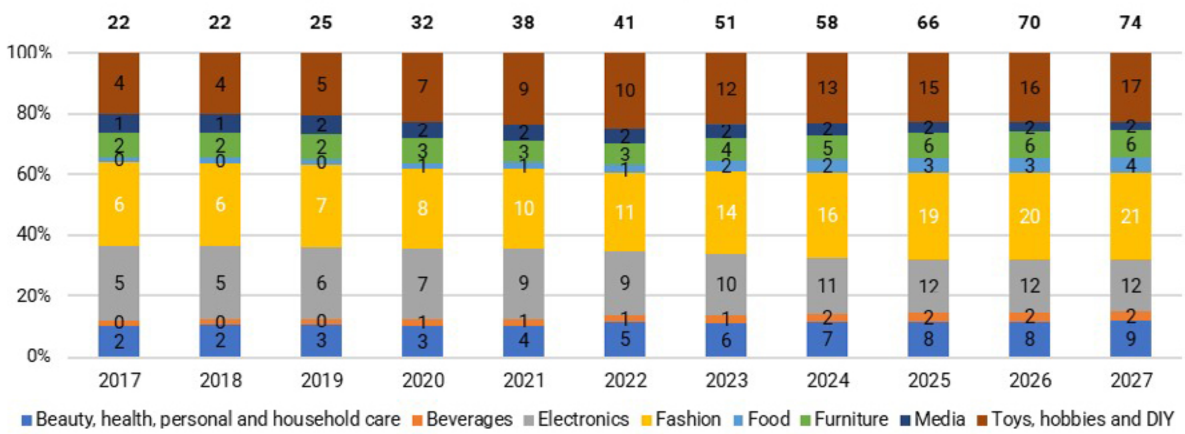

Figure 17: Canada's e-commerce revenue per segment from 2017 to 2027 in billion SDR

20 International Trade Administration. *Canada – Country Commercial Guide.* (2023).

Postal market trends in Canada: parcels and small packets

Canada Post, the designated parcel operator, has seen a substantial decrease in its market share for parcel and small item deliveries, which dropped from 47% in 2018 to 30% in 2021. While parcels over 2 kg constitute 16% of total parcels in Canada, they make up only 5% of Canada Post's parcels and small packets traffic. Despite the overall parcel market experiencing a 25.2% yearly increase between 2017 and 2021, Canada Post's oversight of parcels decreased from 44% in 2019 to 28% in 2021.

The e-commerce parcel delivery market in Canada witnessed robust growth at 25% annually from 2017 to 2021, displacing small packets. Although dominated by domestic delivery at nearly 81%, it also involves imported items (nearly 16%) and items for export (4%). While Canada Post excels in B2C parcel delivery, handling nearly 30% of imported and intra-territory parcels and 7% of parcels for export, its overall market share has been declining. In 2018, Canada Post accounted for 75% of total deliveries, but this figure has decreased over the years. The proportion of imported parcels handled by Canada Post decreased by almost 23% between 2020 and 2021. However, the Post is making gains in the export market in terms of the number of parcels sent, although not in relation to market share.

Canada Post is responsible for the entire small packets market in Canada. However, this market has witnessed a decline in proportion over recent years, constituting 5% of the total market in 2017 and only 3% in 2021. The breakdown of this market has remained relatively stable, with 37% for domestic, 17% for export and 46% for imported small packets. The overall volume of these items is decreasing, with all three segments experiencing negative growth rates in 2021, at -13% for domestic, -5% for export and -4% for imported small packets.

Competitive landscape in Canada

In terms of competition, Canada Post, UPS, FedEx, Amazon, Chit Chats Express, DHL, GLS, Asendia, UniUni and Landmark all serve the domestic delivery and import markets. Smaller competitors with light assets are entering the domestic market, providing same-day/next-day delivery and return services. Amazon remains a significant player in the domestic market. For exports, FedEx, UPS, Purolator and Chit Chats Express are prominent.

In the overall B2C market, Canada Post leads with a 28% market share by volume, followed by UPS at 15%. In the cross-border B2C segment, UPS takes the lead with a 30% market share, followed by Canada Post at 25% and DHL eCommerce at 23%. The national postal service, Canada Post, is also utilized by competitors for last-mile delivery, leveraging its extensive network, especially in remote and hard-to-access areas. Canada Post emphasizes its commitment to sustainability.

3.4 EUROPE

Regional market trends and competitive landscape

In 2020, Europe witnessed a significant acceleration in e-commerce growth, of 28%, driven by pandemic-induced lockdowns. All segments, ranging from fashion (24%) to food (57%), experienced an upswing. However, in 2022, Europe's e-commerce growth was negative for the first time, attributed to a rapid catch-up effect in previous years, economic uncertainties, inflation and supply chain issues.

Despite this, retailers continue to expand across Europe's substantial market, which constitutes 17% of the global e-commerce market. This proportion is expected to remain stable through to 2027. The trends shaping Europe's e-commerce landscape include a focus on local and eco-friendly consumption, increased terminal dues, regulatory impacts (both EU and external) and scrutiny of the sustainability of cross-border exchanges.

The fashion segment is particularly popular in Europe, constituting almost 30% of the region's e-commerce, compared with the global share of 24%. Electronics follows closely with 23%, while toys, hobbies and DIY (15%) and beauty, health, personal and household care (13%) are comparable in size. The electronics market is expected to decline from 23% in 2022 to 20% in 2027 due to market maturity, while the fashion market is anticipated to stabilize at around 32%.

Cross-border e-commerce in European countries varies, with Luxembourg and Belgium having high shares, while larger nations, such as Germany and the UK, rely less on foreign e-commerce.
The top three e-commerce markets in Europe are the UK (24%), Germany (18%) and France (13%), with Amazon leading as the top seller in all three. Figure 18 provides an overview of Europe's e-commerce market based on revenue by segment from 2017 to 2027.

Trade lanes

The UK's e-commerce import/export market faced disruption following Brexit, resulting in increased costs and longer delivery times. Royal Mail experienced drops in imports (7%) and exports (8%) in 2022, prompting operators to import in bulk. The UK ranks fourth globally in e-commerce parcel exports, sending 121 million parcels mainly to Europe (53%) and China (14%).[21] Brexit has had an impact on exports, particularly fashion items. The majority of UK imports (49%) come from China, with US products accounting for 13%.

Germany is the European leader in e-commerce exports, sending over 193 million parcels worldwide in 2021, with 77% to European countries and 9% to China. Key exports from Germany include stationery and items under 2 kg. Germany imported 217 million e-commerce items in 2021,

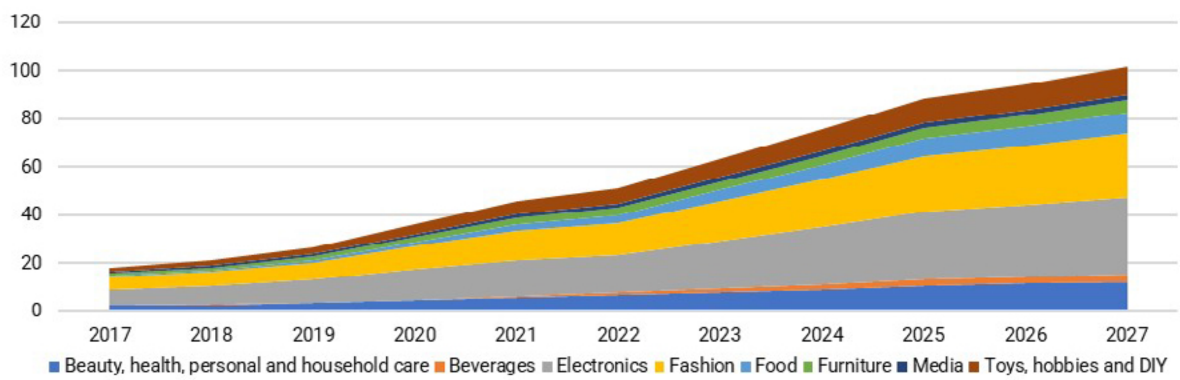

Figure 18: European e-commerce revenue per segment from 2017 to 2027 in billion SDR

21 Out of the pool of countries selected.

50% from China and 29% from Europe. Fashion and electronic goods dominate German imports. Cross-border B2C transactions in Germany account for 21% of volume, experiencing over 10% annual growth.

France exports 64% of its e-commerce items within the region, with Belgium as the primary destination.[22] Fashion items dominate French exports, growing by 7% in 2022. French consumers mainly import from China (49%), Europe (30%) and the US (12%). Cross-border purchases are popular among 64% of French respondents, with Chinese (35%) and US (20%) products favoured.

Türkiye focuses predominantly on domestic e-commerce, which accounts for 92% of its e-commerce revenue. The export and import segments make up only 4% each. Türkiye exported 14 million e-commerce items in 2021, with 42% heading to the European market. UPS Türkiye plays a significant role, especially in trade routes to the US and Europe. China is a major source for Turkish imports (44%), largely comprising electronics and fashion items, with growth being recorded following COVID, but at a slower pace owing to high inflation.

Regional challenges

Brexit had a significant impact on UK e-commerce, leading to a reduction in cross-border trade. The lack of imports strengthened the local market, and Royal Mail estimates that approximately 50% of the reduced import volumes was recouped as domestic parcels. Despite 10% growth in e-commerce, this has not compensated for the loss in cross-border volume. The UK faces a shortage of manpower, especially in major cities and areas such as Greater London. Labour authorities are calling the outsourcing model into question, limiting operators' flexibility and increasing costs. Royal Mail's unexpected price war adds further strain, raising concerns regarding a prolonged crisis for postal actors.

Germany has a balanced market with high-density areas, and its road and rail infrastructure is an asset. Rural areas have stable delivery teams, but major cities such as Munich and Hamburg face a shortage of human resources. GLS seeks 600 drivers, with 8% of delivery workforce roles remaining vacant. Amazon's flexible model contrasts with traditional operators, impacting human resource management and potentially affecting e-commerce as a result of rising delivery wages amid consumer demand for low-priced items.

France has a strong and self-sufficient economy with untapped e-commerce potential, but experiences a human resources shortage, particularly in major cities. La Poste Group is investing in electric fleets, aligning with green initiatives. Intense competition, including support from La Poste Group for unprofitable customers, tightens market margins, leading to scrutiny by competition authorities. Fragmentation of the French territory poses challenges for delivery operators, necessitating consideration of the specificities of overseas territories.

Türkiye's e-commerce is booming, with continuous growth being forecast. Inflation has an impact on Turkish e-commerce, and regional consumers remain traditional, preferring home delivery to out-of-home initiatives.

United Kingdom

E-commerce trends in the UK

The UK has the most advanced e-commerce market in Europe, contributing over 111 billion SDR in sales in 2022 and representing 24% of the regional market. This trend is expected to persist until 2027, maintaining a 22% share. This dominance has been consistent since 2017, when the UK held over 29% of the European market. Notably, the food segment is anticipated to drive growth in the coming years, with a projected annual increase of 13% between 2023 and 2027. Figure 19 provides an overview of the United Kingdom's e-commerce market based on revenue per segment from 2017 to 2027.

Competitive landscape in the UK

In the domestic B2C market, Royal Mail commands a leading position with a 30% market share, closely followed by Amazon at 27% and Evri at 18%. The competition in this market involves Royal Mail, Evri, Amazon, DHL, DPD, UPS and FedEx. Royal Mail also maintains a strong presence in the import and export segments, holding 48% of the market for imports and over half (54%) for exports. Evri, on the other hand, has a limited market share at 4% for imports and 6% for exports.

22 Oxatis/KPMG. *The profile of the e-merchant – special VSE/SME.* (2016).

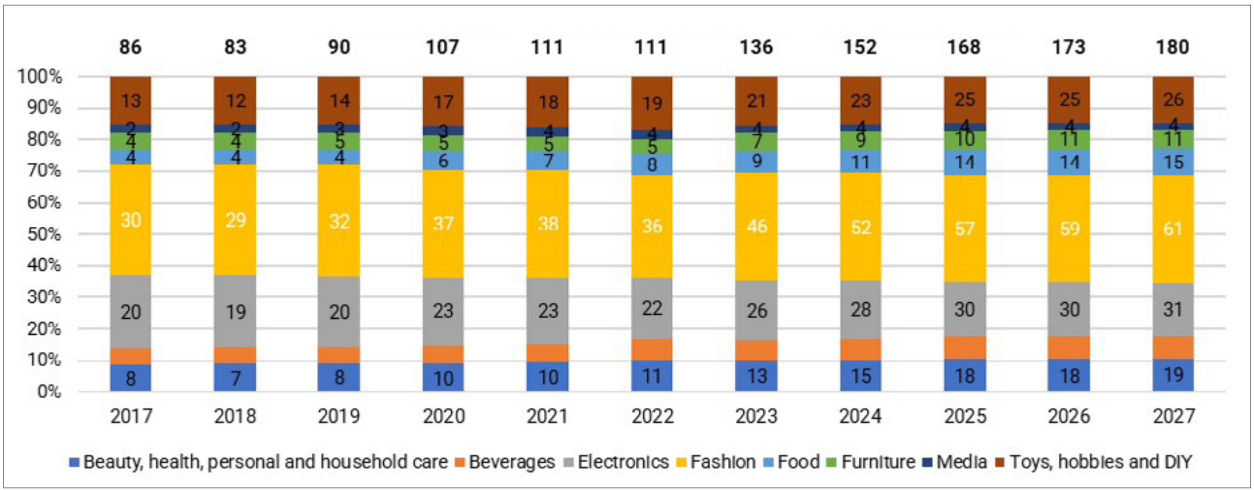

Figure 19: UK e-commerce revenue per segment from 2017 to 2027 in billion SDR

In the cross-border market, Royal Mail is a dominant player with a 50% market share, followed by Yodel at 16% and DPD at 10%. Royal Mail adopts a strategy of not entering into partnerships, emphasizing its strength as the preferred national carrier, especially after the dissolution of its partnership with Amazon.

Evri's strategic objectives are centred around controlling customs clearance – a crucial aspect post-Brexit – and winning the workforce battle to regain market share internationally. Evri aims to strengthen its position in the competitive landscape.

Postal market trends: parcels and small packets

Royal Mail is grappling with an 8% drop in its overall market share, reflecting challenges seen across the parcel industry, including private players. Brexit-related factors led to a significant reduction in both import and export parcels in 2021, of -31% and -28% respectively, resulting in increased costs and slower processes, as noted by Royal Mail. This has heightened competition in the domestic market, with International Post Corporation estimating that parcels and small packets over 2 kg constitute 15% of the UK market, but only 5% of Royal Mail's portfolio, compared to the private sector average of 20%.

From 2017 to 2021, domestic parcels in the UK market experienced robust growth of nearly 22%. Over the same period, export parcels showed no growth and imports decreased by an annual average of 3%. Royal Mail witnessed a decline in market share for all three parcel types, albeit to varying extents. Market share decreased slightly for domestic parcels, moderately for exports (from 64% in 2017 to 54% in 2021) and significantly for imports (from 83% in 2017 to 48% in 2021). The number of import parcels delivered decreased by an average of almost 16% annually from 2017 to 2021.

Royal Mail is the sole player in the small packets market, constituting 100% of this sector. However, in 2021, the small packets market in the UK accounted for 3% of the total combined parcels and small packets market, down from 5% in 2018. This decline is attributed to a 17% decrease in the number of imported parcels and a 7% decline in exported parcels in 2021.

Germany

E-commerce trends in Germany

Germany has the second-largest e-commerce market in Europe, followed by France, and ranks fifth globally, as reported by the French Chamber of Commerce in Germany.[23] In 2022, German e-commerce generated 84 billion SDR, constituting 18% of the regional e-commerce market. The growth rate from 2017 to 2022 was 12% annually. The B2C segment of the delivery market has surged, increasing from 10% in 2012 to 48% in 2022, overshadowing the B2B segment. Despite a 1% contraction in 2022, a positive outlook is anticipated for 2023, with forecast growth of 21%. However, from 2024 onwards, a more modest growth rate of 6% annually is

23 French Chamber of Commerce in Germany.

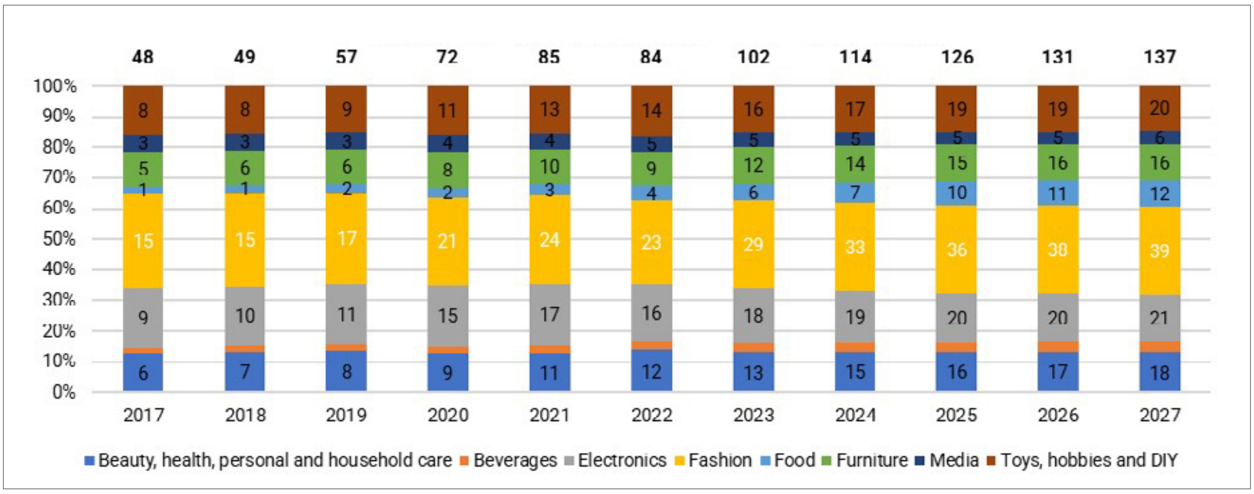

Figure 20: Germany's e-commerce revenue per segment from 2017 to 2027 in billion SDR

expected until 2027, with a projected decline in Germany's share of regional e-commerce to 16%.

The segmentation of German e-commerce remains relatively stable, with the fashion market being the most popular segment, constituting over 27% of e-commerce in 2022 and expected to maintain its popularity through to 2027. The electronics segment follows and, although its market share is projected to decrease, it will still hold second position in 2027. This market trend is aligned with data from carriers such as GLS Germany, which identifies fashion and consumer electronics as the two most significant segments for imports.

Looking ahead, promising growth is anticipated in the food and beverage markets, with average annual growth of 20% and 13% respectively from 2023 to 2027. Despite gaining market share, these segments are expected to remain marginal at 8% and 4% respectively by 2027. Figure 20 provides an overview of the German e-commerce market based on revenue by segment from 2017 to 2027.

Competitive landscape in Germany

In the German B2C delivery market, DHL dominates with a 54% market share, followed by Hermes (14%), Deutsche Post (10%) and Amazon (9%). Deutsche Post maintains leadership in the overall market, excluding the domestic segment, with a commanding 63% share, surpassing competitors such as UPS (15%) and GLS (5%).

GLS holds an 8% share in the German B2C market, and is most prominent in B2C imports with a 9% share. However, it has a smaller presence in the export market (3%) and the domestic B2C market (8%). GLS competes with DPD, UPS, FedEx, Trans-o-flex and DHL in the domestic and import markets, and faces DHL, DPD and UPS in the export market.

The shortage of manpower in Europe is affecting the delivery industry, and GLS aims to address this issue while also improving its IT integration to better serve its customers.

Postal market trends in Germany: parcels and small packets

In Germany, the postal operator, Deutsche Post, has experienced a slight decline in its market share for parcel and small item deliveries, dropping from 62% in 2017 to nearly 59% in 2021. However, this decrease is relatively modest compared to global trends. The share in parcel delivery remained almost constant, with a loss of only 1 percentage point during the above period. This decline is partly attributed to a contraction in the small packets market.

The over 2 kg parcel market in Germany is estimated to account for 15%, while larger parcels represent 12% of the parcels and small packets handled by Deutsche Post (compared to 20% for private players). GLS Germany notes a trend of increasing average weights for items and parcels. The prevalence of small packets in Germany has been decreasing; in 2021, small packets constituted 10% of the total market, down from above 13% in 2017.

The small packets market in Germany is primarily organized around import parcels (51%), with the

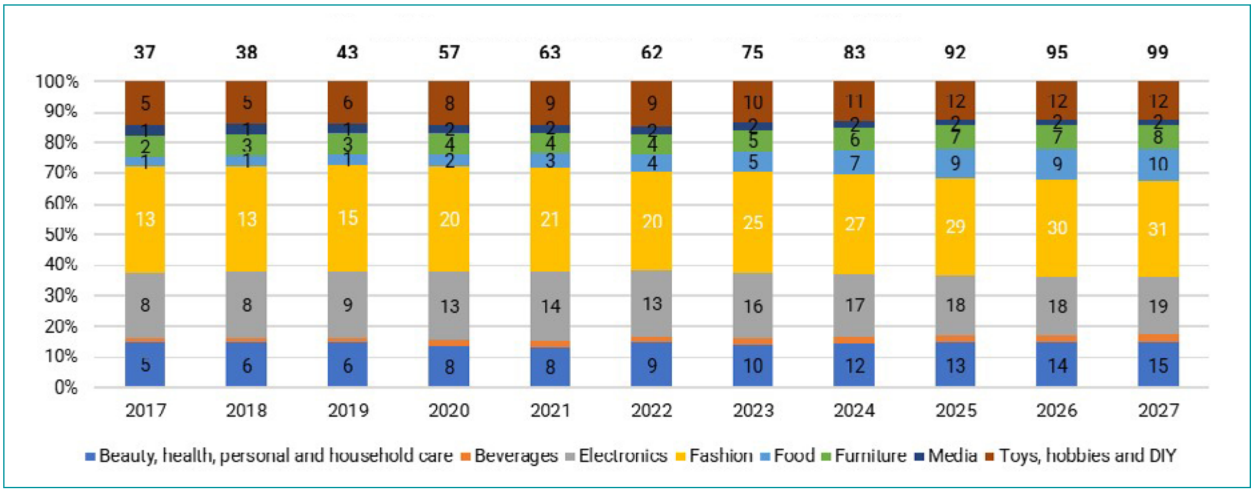

Figure 21: France's e-commerce revenue per segment from 2017 to 2027 in billion SDR

domestic market representing 27% and exports accounting for a less significant 21%. These proportions have remained relatively stable over time. Currently, the parcels market constitutes over 90% of the total market (in a notable increase from 87% in 2017), with the domestic market accounting for the majority at 90%, and exports and imports making up 6% and 4% respectively.

Deutsche Post plays a significant role in handling parcels, with 59% of imported B2C parcels, 66% of export parcels and 54% of domestic B2C parcels in transit. These proportions have remained steady from 2017 to 2021, indicating the efficiency and stability of the German postal operator. The parcel delivery market in Germany shows promising growth, with Deutsche Post transporting parcels at double-digit rates, emphasizing the robust performance of the sector.

France

E-commerce trends in France

In 2022, the French e-commerce market accounted for 13% of the total European market, amounting to 62 billion SDR. However, its significance in the European market is expected to decrease to 12% by 2027. French consumers are the top spenders on e-commerce in Europe, averaging almost 2,500 EUR per year, with Amazon being the leading platform.[24] M-commerce has been slow to develop in France, with purchases made via computers still constituting the majority (60% in 2022).

The B2C segment in France has experienced substantial growth, reaching 55% of the overall parcel market in a significant increase from 18% in 2012.[25] In 2022, the fashion segment accounted for 32%, following trends similar to the UK. Electronics is expected to lose market share, while the furniture, food and beverage segments are anticipated to see robust growth. The beauty, health, personal and household care segment is expected to surpass toys, hobbies and DIY, representing 15% by 2027.

E-commerce exchanges in France are primarily domestic, constituting 93% of the total value, with only 7% generated by cross-border exchanges. This trend is reflected in the distribution of transported items within France. Figure 21 provides an overview of the French e-commerce market based on revenue by segment from 2017 to 2027.

Competitive landscape in France

In the French B2C parcel delivery market in 2021, La Poste Group secured the leading position with a market share of over 41%, followed by Amazon at 17% and Chronopost at 13%. In the cross-border market, Chronopost led with 26%, followed by La Poste Group at 23% and Mondial Relay at 14%. GLS France held a 4% share in the total B2C market volume, with a minor presence in the domestic (3%) and export (3%) segments. Its stronger performance in the import segment accounted for 14% of the market. GLS France aims to enhance its export business, in which it

24 WPL. E-commerce Payments Trends Report: France Country Insights. (2021).
25 GLS France. gls-group.com. (2023).

faces competition from La Poste Group, Geopost (DPD), UPS and DHL. The influx of new players has driven prices down, affecting GLS France's profitability and hindering IT investment for cost control and customer flexibility. To optimize its portfolio and reduce staff, GLS France plans to separate from unprofitable customers. Long-term goals include competing through flexible collection solutions. Amazon, although not a direct customer competitor for GLS France, poses challenges in the driver market due to its outsourcing solutions, whereby it offers financial support, better vehicles and higher remuneration. La Poste Group maintains a significant presence in France, commanding 52% of the total parcels and small packets market. Competitors vary by market segment, with Mondial Relay, Private Parcel, ColiColi, InPost (Mondial Relay), GLS and UPS among those competing on different fronts.

Postal market trends: parcels and small packets

The French DO, La Poste (France), remains a significant player in the market, handling over half of transported parcels and small packets in 2021. However, La Poste has witnessed a decline in market share, decreasing from nearly 62% in 2017 to 52% in 2021. This decline is primarily attributed to the shrinking small packets market, which is exclusively managed by La Poste. Despite its increased parcel volume (growing at a rate of 15% annually from 2017 to 2021), La Poste is also losing market share in this segment.

Parcels and small packets weighing more than 2 kg constitute 19% of the overall market, with La Poste's share estimated at 14% – the highest among all postal operators considered. GLS France reports an unusually high average weight of 17 kg; this is a characteristic of GLS's business that is expected to decrease as e-commerce grows and replaces bulkier shipments. La Poste Group noted significant growth in the average weight of imported small packets in 2019 and 2020, stabilizing from 2021 onward. A similar pattern is observed for the weight of exported parcels, with a notable increase in 2020 followed by a decrease in average weight from 2021, likely influenced by the lockdowns induced by the COVID-19 pandemic.

La Poste exclusively handles 100% of the small packets segment. As for its European counterparts, the DO has observed a decline in the small packets market, despite robust e-commerce growth in 2020. The small packets segment saw a minimal increase, while the parcels segment exhibited exceptional growth rates – 38% for domestic parcel delivery, 45% for imported parcels and 6% for exported parcels. This contrast is evident in the share of small packets within the overall market, decreasing from 30% in 2018 to 20% in 2021.

In the parcels market, La Poste maintains a substantial presence, handling 44% of domestic parcels, 21% of imported parcels and 26% of exported parcels in 2021. However, its share in parcel transportation has declined since 2017, when it accounted for 51%, 24% and 46% of these three categories respectively. Despite the decrease in market share, La Poste has experienced a notable increase in the actual number of parcels delivered, up by 15% annually for domestic parcels and almost 17% for imported parcels between 2017 and 2021.

Türkiye

E-commerce trends in Türkiye

In 2022, the Turkish e-commerce market constituted 3% of the regional market, amounting to
15 billion SDR. Despite a 7% reduction in 2022, the market had experienced remarkable growth, averaging 13% annually from 2018 to 2022, including a notable surge of 35% in 2020. This growth was attributed to increasing access to e-commerce among the Turkish population, with 46% participating in 2022 compared to half that number in 2016.[26] Key players such as Trendyol Express, Kolay Gelsin and hepsiJET demonstrated rapid growth in 2021.

In 2022, the Turkish electronics segment comprised 45% of the local market and 5% of the European market, followed by fashion at 22% of the Turkish market and less than 2% regionally. Toys, hobbies and DIY represented 19% of the overall e-commerce market in Türkiye, with other segments recording shares below 7%. The media and food segments are expected to have low annual growth rates in the coming years, while all other segments were projected to grow by 13% annually from 2023 to 2027. The potential impact of inflation on this growth was noted, and the

26 Turkish Statistical Institute

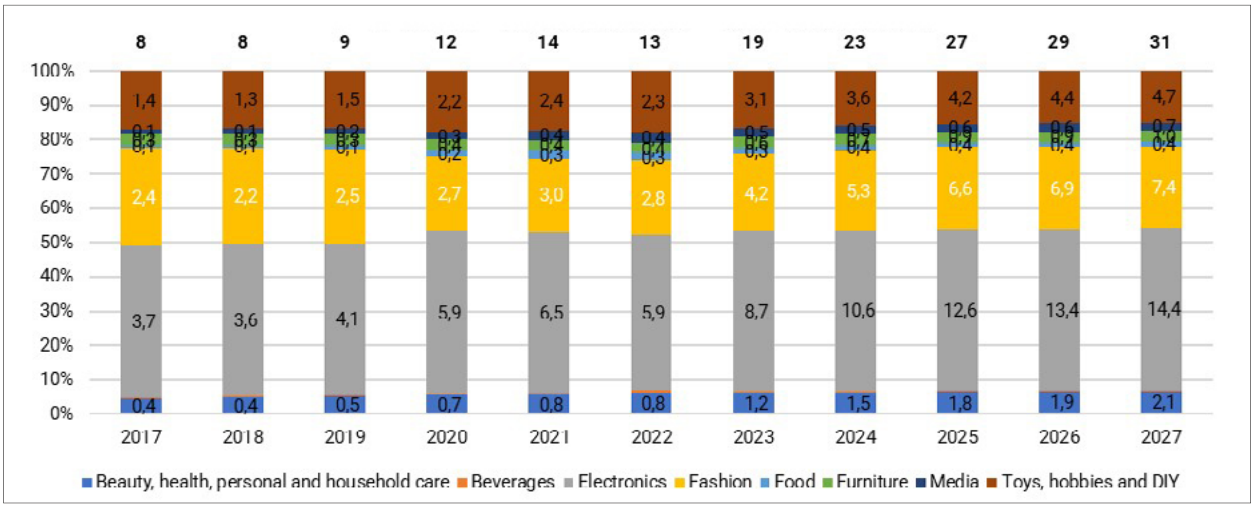

Figure 22: Türkiye's e-commerce revenue per segment from 2017 to 2027 in billion SDR

distribution of the e-commerce market in 2027 was anticipated to remain consistent with the present distribution. Figure 22 provides an overview of the Turkish e-commerce market based on revenue by segment from 2017 to 2027.

Competitive landscape in Türkiye

In the Turkish domestic market, UPS holds a 5% share of the B2C segment, competing with carriers such as Aras Kargo, Yurtiçi Kargo and Turkish PTT Corporation. However, UPS excels in the cross-border sector, leading with a 30% share of B2C exports and 20% of B2C imports. MNG Kargo, Turkish PTT Corporation and Aras Kargo are competitors in the import segment, while Aras Kargo, FedEx/TNT, DHL and MNG Kargo compete in the export market. Notably, new entrants such as Trendyol Express, Kolay Gelsin and hepsiJET have joined the market as a result of e-commerce growth.

In cross-border operations, UPS maintains an independent network without interaction with competitors. While claiming to support other domestic carriers for international export from the domestic market (names confidential), UPS significantly increased its export capacity from Türkiye, by 40%, in 2021, launching new flights to other European countries. Additionally, in 2022, UPS invested in doubling the capacity of its Istanbul facility (İGA), incorporating an 8,000 m^2 sorting and delivery facility.

Despite the implementation of Fulfillment by Amazon in Türkiye, Amazon outsources all deliveries to its main partners, such as Aras Kargo, MNG Kargo, AGT and Kolay Gelsin, without collaboration with the national postal player, distinguishing its approach in Türkiye from that applied in France and Germany.

Postal market trends in Türkiye: parcels and small packets

Since 2019, Turkish PTT Corporation, the national postal operator, has experienced a decline in its overall market share. In 2019, it held a 25% share, which decreased to 17% in 2021. This decrease is attributed to challenges in the small packets market, where Turkish PTT Corporation holds a monopoly, and a subpar performance in the parcels market. Despite delivering a growing number of parcels (averaging a 13% annual increase from 2017 to 2021), the postal operator is losing market share, dropping from 22% in 2017 to 15% in 2021.

Parcels are experiencing robust growth across the domestic, export and import markets. Between 2017 and 2021, the number of parcels increased significantly, with 27% growth for domestic parcels, 26% for export parcels and 26% for import parcels, for all delivery actors combined. Turkish PTT Corporation is predominantly responsible for handling domestic parcels, but holds a minimal share in cross-border parcels.

Turkish PTT Corporation handles 100% of small packets and has faced challenges since 2020. Imported small packets have seen a significant decline, at a rate of 28% per annum between 2019 and 2021. Domestic small packets experienced a decrease of 16% per annum during the same period. In contrast, exported small packets have shown growth, averaging 22% per annum from 2017 to 2021, with a notable surge in 2020 (+45%).

However, these exported small packets constitute less than 1% of total parcel and small packet deliveries combined.

3.5 AFRICA

Regional market trends and competitive landscape

While the penetration rate of e-commerce in Africa is currently low, the foundations for its development are robust. The number of Internet users in the region has more than doubled from 263 million in 2016 to 540 million in 2022. E-commerce is expected to experience 12% annual growth between 2023 and 2028. Despite its growth potential, the African e-commerce market remains marginal, constituting less than 1% of global e-commerce in 2022, and this share is not anticipated to increase significantly before 2027.

The dominant segments in Africa's e-commerce market include electronics (34%), followed by fashion (21%) and beauty, health, personal and household care (14%). The market is relatively stable, with only the electronics segment showing a slight increase in market share at the expense of the media segment through to 2027, reaching a 39% share.

Nigeria, South Africa and Egypt are the leading countries in the region, with revenue of 4.8, 4.2 and 4.1 billion SDR respectively in 2021. Kenya and Namibia follow, with revenue of 2.3 and 0.1 billion SDR. Jumia leads the online marketplaces in Africa with 148 million annual visits, followed by Gumtree with 146 million and Amazon with 140 million.[27] The distribution of revenue by segment from 2017 to 2027 is illustrated in figure 23.

Regional challenges

E-commerce in South Africa holds significant potential for global standards, especially considering the expected exponential growth in the coming years. However, its development has been heterogeneous, with urban markets reaching saturation and experiencing slight growth, while rural areas present substantial growth opportunities due to increasing purchasing power. The inadequacy of transport infrastructure, characterized by underdeveloped road and rail networks, poses challenges that make delivery in Africa difficult, costly and slow. Some delivery operators are adapting by exploring alternative solutions, such as motorcycle cab deliveries and the use of relay points (e.g. post offices in Namibia).

Africa's young and connected population, with a median age of 19 in 2021, offers an opportunity for e-commerce growth.[28] However, challenges such as limited online payment options due to low bank penetration rates (particularly in countries such as Nigeria, Kenya and Egypt, where half of all adults are unbanked) pose constraints.[29] Payment on receipt remains a preferred method. Additionally, limited Internet coverage (below the global average at 44% of the population in 2021)

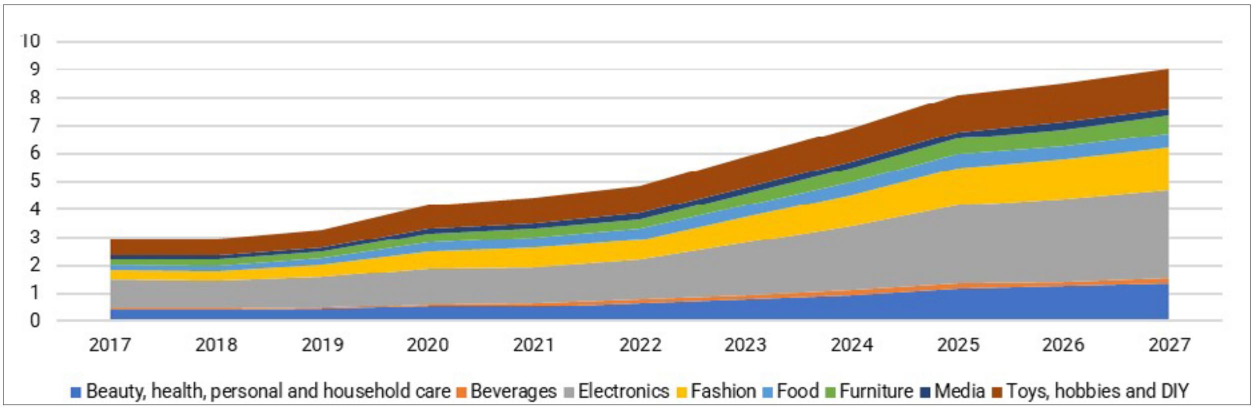

Figure 23: Africa's e-commerce revenue per segment from 2017 to 2027 in billion SDR

27 International Trade Centre. *Africa market analysis.* (2019).
28 World Population Review. *World Population by country.* (2023).
29 Statista. *The rise of e-commerce across Africa.* (2023).

and high reliance on mobile devices (69.1% of Internet traffic) – necessitating mobile payment infrastructures – have an impact on e-commerce accessibility. Infrastructure improvement initiatives, such as those monitored by Aramex in South Africa, aim to enhance coverage. In South Africa, challenges also include inadequate road infrastructure for long distances, expensive post office usage and unreliable labour and subcontractors, leading to potential delays and management issues in deliveries.

Egypt

Egypt has the second-largest e-commerce market in Africa, generating 4.1 billion SDR in revenue in 2021. Forecasts predict 50% growth, reaching 8.2 billion SDR, by 2027. With 85 million Internet users and a 57.3% penetration rate, Egypt exhibits significant potential for e-commerce expansion. Notably, 57% of Egyptians opt for cash on delivery, while 22% use cards, 7% bank transfers and 14% e-wallets for online payments. Key product categories include electronics and media (26%), fashion (21%) and food/personal care (21%). Egypt Post, the national postal service, enjoys an advantage with over 4,000 post offices accessible to citizens. Egypt Post's commitment to enhancing customer service and facilitating cross-border trade within Africa is demonstrated by its modernization of its operations, implementation of a nationwide postcode system and launch of an e-commerce platform called Ecom@Africa in collaboration with the UPU.[30]

Nigeria

E-commerce trends in Nigeria

Nigeria leads the e-commerce market in Africa, generating 4.8 billion SDR in 2021, with expectations that this figure will nearly double to 7.8 billion SDR by 2027. The country is projected to achieve an e-commerce penetration rate of 53% by 2025, the second-highest after Egypt. In 2021, Nigerian consumers favoured electronics (2.00 billion SDR), fashion (1.25 billion SDR) and furniture (670 million SDR). Boasting 144 million e-commerce users, Nigeria has 39% Internet coverage, with this figure projected to reach 49% by 2027.

The Nigerian Postal Service (NIPOST) is actively modernizing its technological systems, implementing address verification solutions and introducing home delivery and post office boxes to enhance services. NIPOST has established a dedicated business unit for e-commerce activities, aligning with the government's promotion of local products and rural development. The unit provides various e-commerce services, including online buying and selling, last-mile delivery, post office pickup, reverse logistics, stockholding and logistics services, such as freight, transport, linear and warehousing services. Nigeria's high growth potential in e-commerce is linked to improving Internet coverage and advancing transport infrastructure.

Competitive landscape in Nigeria

NIPOST holds a crucial competitive advantage thanks to its extensive nationwide presence, boasting 4,168 postal service centres and 32 territorial head offices, reaching every corner of the country. This widespread network provides a superior product delivery infrastructure compared to private competitors such as DHL and FedEx. To sustain its competitive edge, NIPOST must enhance its services by embracing digitalization and addressing issues such as parcel security in exports. Currently, reliance on manual and outdated processes poses a risk of customer attrition, making it imperative for NIPOST to evolve and meet contemporary expectations.

South Africa

E-commerce trends in South Africa

South Africa is a leading economy in Africa with advanced infrastructure. In 2021, its e-commerce sector generated 4.2 billion SDR, constituting 26% of the regional e-commerce market (down from 45% in 2017). Despite urban market saturation with slow growth rates of 3–4%, South Africa is expected to maintain its e-commerce prominence, comprising 25% of the regional market in 2027. The electronics market is thriving and represented nearly 30% of South Africa's e-commerce in 2022, as observed by Aramex South Africa in imported items. The toys, hobbies and DIY (21%) and fashion (15%) segments follow on closely. Anticipated high growth rates from 2023 to 2027, particularly in beauty, health, personal and household care (+15%), electronics (+14%) and fashion (+13%), will result in these segments holding 67% of the South African e-commerce market by 2027, with

30 ECOM Africa.

electronics alone capturing 35%. Aramex notes a 6% increase in South African imports.

Postal market trends in South Africa: parcels and small packets

The significance of the national postal service, South African Post Office (SAPO), has diminished over the years, at 14% of the global delivery market in 2021 compared with 25% in 2017. SAPO remains more influential in domestic deliveries (16% in 2021), but plays a marginal role in cross-border parcels, as evidenced by negative growth rates in the domestic market and nearly zero growth in the cross-border market. Despite a growing market since 2017, SAPO's share has declined over the years. Additionally, exports of e-commerce items from South Africa, as well as from this geographical area as a whole, remain relatively low.

Parcel delivery in South Africa has experienced an 11% annual increase from 2017 to 2021, with imported and exported parcels driving growth at approximately 15% annually. The domestic market constitutes 80% of transit parcels, though its share has slightly decreased since 2017. The proportion of imported parcels has increased from 14% to 17% during the same period, while exported parcels remain a small portion, primarily consisting of documents.

Competitive landscape in South Africa

SAPO faces intense competition in the South African market, allowing companies such as DHL and Aramex to dominate the market amid a growing e-commerce sector. The competitive landscape is dynamic, with some new players exiting the market within six months. In the overall B2C market (i.e. small packets and parcels, domestic and cross-border), SAPO claimed a 14% market share in 2021, with Mr Delivery at 12% and Fast + Furious at 10%. However, in the B2C import and export segment alone, DHL Express leads with a 28% market share, followed by FedEx TNT at 23% and Aramex at 12%. Aramex demonstrates versatility with a 12% market share in parcels and 21% in documents, providing professional interfaces for international tracking and accounting. In the domestic segment, Aramex competes with players such as SAPO, The Courier Guy, Fastway, Dawn, Wing, Door 2 Door, Courier It and PostNet. In cross-border operations, SAPO faces competition from DHL, UPS and FedEx.

Kenya

E-commerce trends in Kenya

Kenya's e-commerce market has witnessed substantial growth, reaching 2.3 billion SDR in 2021 and projected to increase further. Forecast to generate 3.3 billion SDR by 2027, the electronics segment will be the primary contributor, constituting over 50% of the market. The beauty, health, personal and household care sector is set to experience robust growth, with projected annual sales growth exceeding 60% from 2023 to 2027, reaching 133 million SDR by 2027. Similarly, the fashion segment is expected to grow at a rate of 10–12% annually, capturing 36% of Kenya's e-commerce market. Internet penetration in Kenya has significantly increased, reaching 43% in 2021, attributed to investment in infrastructure and widespread mobile device usage. The country's growing economy, with a GDP of 87.9 billion USD in 2021, is driving consumer spending, further fuelling e-commerce expansion. Overall, Kenya's e-commerce market is poised for sustained

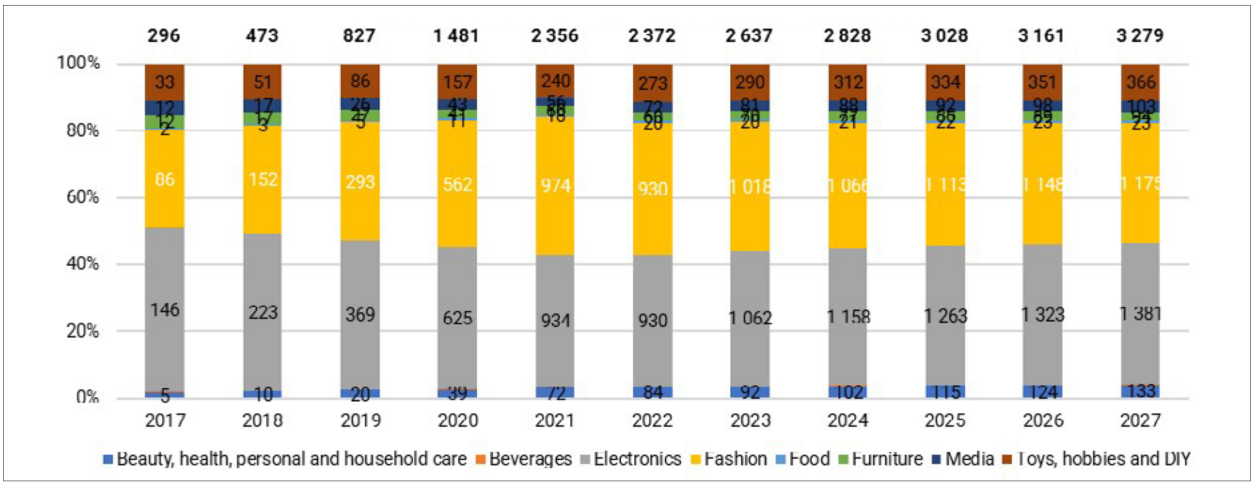

Figure 24: Kenya's e-commerce revenue per segment from 2017 to 2027 in million SDR

growth, propelled by increased Internet access, economic expansion and rising consumer demand for online shopping. Figure 24 provides an overview of Kenya's e-commerce market based on revenue per segment from 2017 to 2027.

Competitive landscape in Kenya

Kenya's parcel delivery sector is marked by intense competition, involving key players such as Posta Kenya, G4S, DHL, FedEx and local start-ups, including Sendy and Copia. While Posta Kenya has traditionally held a dominant position, it faces robust competition from private firms (e.g. G4S) and global entities (e.g. DHL and FedEx). The competitive landscape is evolving owing to technological advancements, notably the surge in e-commerce. With the upward online shopping trend, there is rising demand for swift and dependable delivery services, leading to the emergence of players such as Jumia and Kilimall, which incorporate delivery services into their e-commerce models. This dynamic market benefits consumers by fostering the development of more efficient, reliable and cost-effective delivery services (particularly in urban areas) and expanding delivery options for previously underserved rural regions.

Namibia

E-commerce trends in Namibia

Namibia's e-commerce market, comprising around 100,000 buyers, is closely tied to the growth of the B2C sector. While the market is gradually expanding, it remains small, and major players such as Amazon, Alibaba and AliExpress are absent. The country's population of 2 million faces challenges with regard to specialized manpower, particularly the drivers crucial for e-commerce development. E-commerce parcel exports are limited and relate mostly to the tourism industry, with imports driven by technological advancements, fashion, financial considerations and demographics. Namibia Post notes that imported parcels primarily consist of mobile phones, electronic devices and small items from East Asia. The COVID-19 pandemic and factors such as disruption to cargo flights, exchange rate fluctuation and energy prices all have an impact on e-commerce, particularly imports. Namibia Post observes a trend towards lighter parcels, especially imports below 500 g, mostly from Singapore and China. Despite challenges, the e-commerce market is evolving, as depicted in figure 25, which shows revenue per segment from 2017 to 2027.

Competitive landscape in Namibia

The small size of Namibia's market has led Namibia Post to collaborate with external entities. The national postal service has joined forces with MyUniversalShop, which manages the convenience platform, though this partnership is not Namibia-centric. Namibia Post uses DHL for international channels and collaborates with FedEx for import and export, occasionally engaging with Aramex. Effigy Consulting data reveals Namibia Post's dominance (55%) in the domestic small packets segment, with DHL, Aramex and FedEx also contributing. Namibia Post oversees most postal shipments and a portion of imported/exported parcels, particularly those sent to private companies. Domestic competition includes courier services and private-sector entities, while DHL and FedEx are prominent players in the international segments, with UPS holding minimal significance.

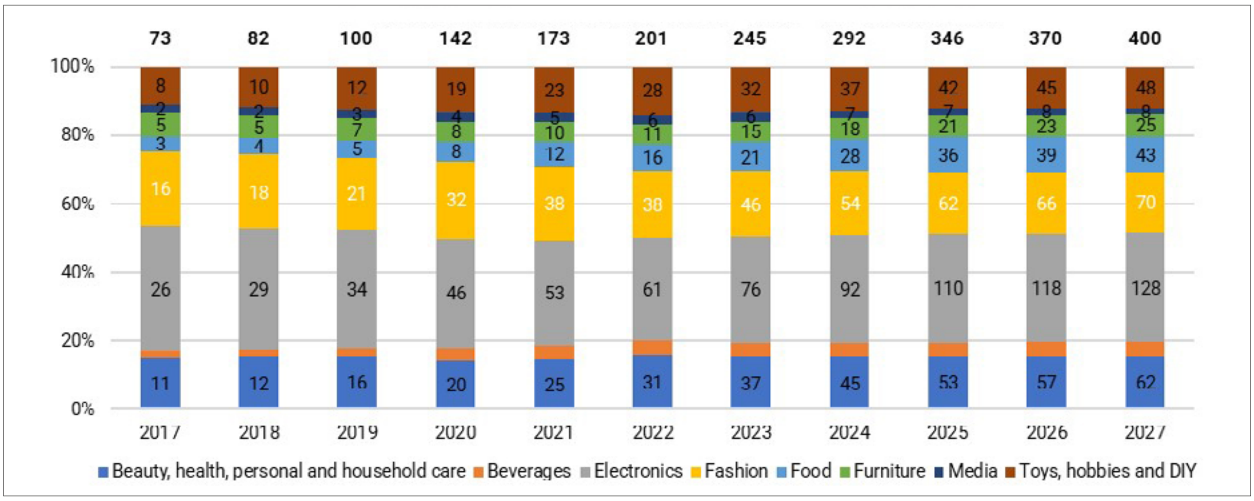

Figure 25: Namibia's e-commerce revenue per segment from 2017 to 2027 in million SDR

3.6 ARAB COUNTRIES

Regional market trends and competitive landscape

Arab countries constituted 2% of the global e-commerce market in 2022, and this share is anticipated to persist through to 2027. With projected annual growth of 13% from 2023 to 2027, the region's e-commerce sector is dominated by the electronics segment, which accounts for 30% of the market, followed by fashion (26%) and beauty, health, personal and household care (13%). All segments, excluding media, are poised for robust growth, ranging from 11% for furniture to 18% for beverages. The composition of the e-commerce market is expected to remain relatively unchanged through to 2027, with electronics maintaining its leading position. The United Arab Emirates leads the regional e-commerce market, generating 8.46 billion SDR in 2022, followed by Saudi Arabia at 8.28 billion SDR. Top platforms include Trendyol, hepsiburada.com and Amazon.[31] Figure 26 provides an overview of the Arab countries' e-commerce market based on revenue per segment from 2017 to 2027.

Regional challenges

In the UAE, significant opportunities exist for delivery operators amid the potential for e-commerce expansion and domestic logistics prospects. Anticipated e-commerce growth is poised to shift from imports to the domestic market, albeit with decreasing profit margins. Aramex UAE is proactively investing in warehousing and bulk imports to strategically navigate the market. However, a major concern for industry players is the risk of faster-than-expected market saturation. The critical shortage of drivers is a common challenge in the region, prompting some entities to employ drivers directly. The labour market, particularly with regard to the employment of foreign nationals (who constitute 90% of drivers), is currently highly regulated and bureaucratic.

United Arab Emirates

E-commerce trends in the UAE

In 2022, the UAE's e-commerce market represented 17% of the regional market, already surpassing the forecast 13% for 2027 as a result of other countries in the region recording a decrease their market share. Fashion dominates the market, constituting nearly 40% in 2021 and expected to remain stable through to 2027. Electronics is the second-largest market, at 19% in 2021 and expected to remain constant by 2027. The toys, hobbies and DIY segment held a 15% share in 2021. The UAE's e-commerce market is expected to grow moderately (8% annually from 2023 to 2027), with the food and beverage segments leading the trend. Imports prevail in the UAE, fuelled by increased purchasing power and demand for luxury and high-end products. This category encompasses fashion, electronics, games, sports equipment and luxury car parts.

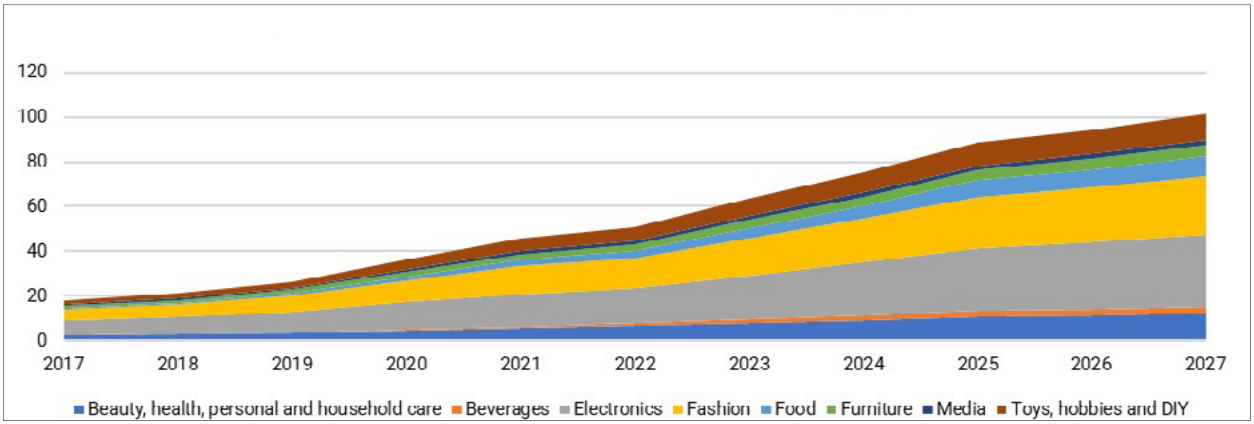

Figure 26: Arab countries' e-commerce revenue per segment from 2017 to 2027 in billion SDR

31 Semrush. *fr.semrush.com*. (2023).

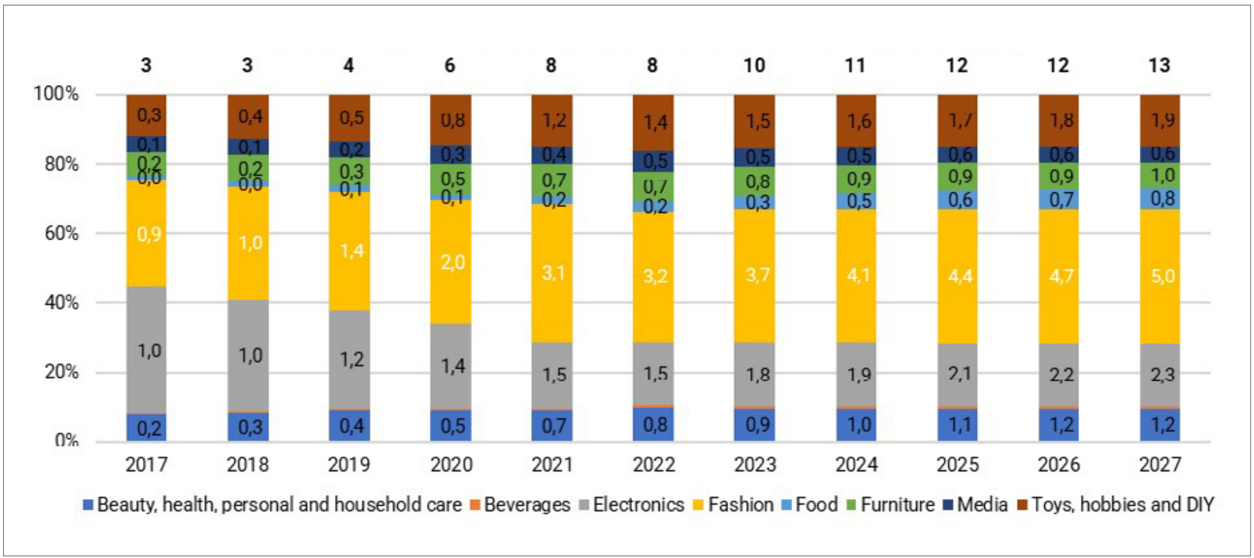

Figure 27: United Arab Emirates' e-commerce revenue per segment from 2017 to 2027 in billion SDR

E-commerce affects both the domestic market (bulk imports) and imports, with almost non-existent exports. Imports are growing by 11%, but Aramex UAE anticipates saturation or replacement by domestic business in the near future. Figure 27 depicts UAE e-commerce revenue by segment from 2017 to 2027.

Competitive landscape in the UAE

Aramex, based in the UAE, is a key player in the local market, along with Emirates Post Group and DHL. It competes with DHL, UPS, FedEx and Emirates Post Group, but has not formed partnerships with its competitors, instead managing all deliveries internally. Aramex utilizes IT systems with common standards, but local implementation poses challenges for harmonization.

Saudi Arabia

E-commerce trends in Saudi Arabia

Saudi Arabia's e-commerce market has shown consistent growth across various sectors in recent years, with expectations of continued expansion in the future. The consumer market in Saudi Arabia is poised to sustain its growth, propelled by key industries – including toys, hobbies and DIY, fashion and electronics – in parallel with the expanding e-commerce sector. Figure 28 illustrates the breakdown of revenue by segment in Saudi Arabia's e-commerce market from 2017 to 2027.

Competitive landscape in Saudi Arabia

The postal and delivery sector in Saudi Arabia is characterized by intense competition and diversity, with various entities participating in the market. Saudi Post, a state-owned enterprise, has historically been the dominant player, but the landscape has evolved to include private companies such as Aramex, DHL and UPS. To stay competitive, Saudi Post has undertaken modernization initiatives, enhancing its IT infrastructure and automating processes. The Post has diversified its services to encompass e-commerce, logistics and financial services, aligning with the growing demand for online shopping.

Simultaneously, private entities such as Aramex, DHL and UPS have expanded their presence, providing a spectrum of services that includes express delivery and logistics solutions. Competition among these entities often centres on factors such as shorter delivery times, improved tracking mechanisms and specialized services. This robust competition has stimulated innovation, leading to the introduction of new services and technologies that enhance the overall quality and efficiency of postal and delivery services in Saudi Arabia.

Oman

E-commerce trends in Oman

Oman's retail e-commerce sector has demonstrated consistent growth, expanding from

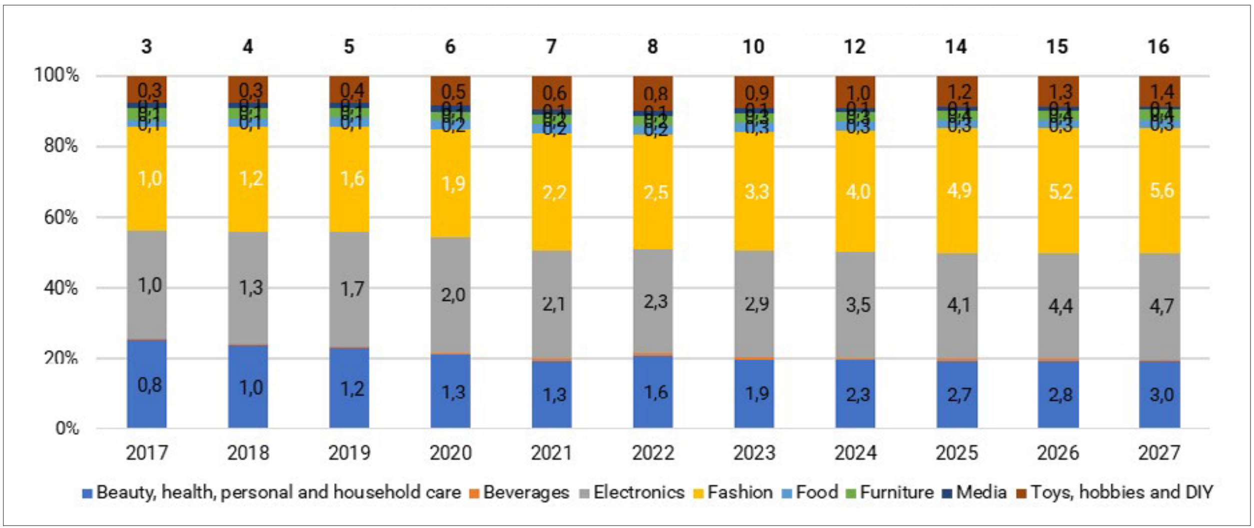

Figure 28: Saudi Arabia's e-commerce revenue per segment from 2017 to 2027 in billion SDR

822 million SDR in 2017 to an estimated 2.6 billion SDR in 2027. Notably, the beauty, health, personal and household care segment has been the most rapidly advancing sector, boasting a CAGR of 14% and expected to reach 215 million SDR in 2027. The electronics segment has also experienced significant growth, registering a 12% CAGR and expected to be worth 985 million SDR by 2027. Fashion, with a CAGR of 9%, is a substantial segment and is forecast to achieve a market value of 554 million SDR in 2027. The food segment is also worthy of note, predicted to secure a market value of 473 million SDR in 2027, highlighting the increasing trend of online grocery shopping. The overall e-commerce market in Oman has sustained a CAGR of 11%, indicating robust and continuous expansion. Figure 29 provides an insightful overview of Oman's e-commerce market, depicting revenue per segment from 2017 to 2027.

Competitive landscape in Oman

In Oman, the letter and parcel delivery sector is primarily led by Oman Post, the government-owned postal operator. Despite this dominance, international shipping services to and from Oman are also provided by players such as DHL, FedEx and UPS. Oman Post offers a comprehensive range of services, encompassing domestic and international mail delivery, EMS and e-commerce fulfilment. With the rising demand for e-commerce deliveries, Oman Post has extended its services and adopted modern technologies, such as track-and-trace systems, to enhance efficiency and service quality. However, there is still room for improvement, particularly in terms of delivery times and service quality in remote areas.

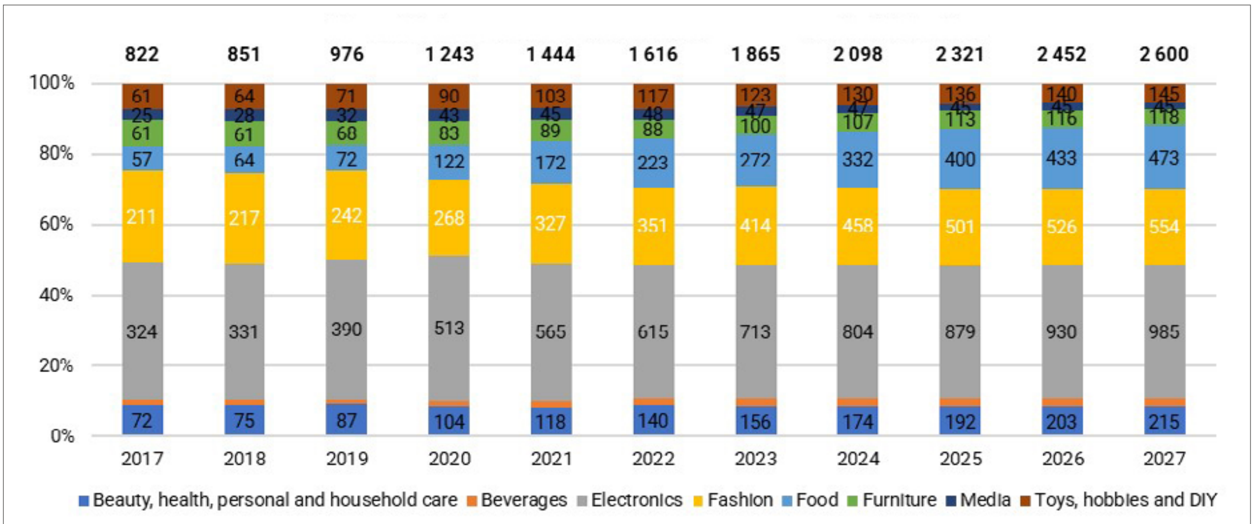

Figure 29: Oman's e-commerce revenue per segment from 2017 to 2027 in million SDR

4 E-COMMERCE OPPORTUNITIES AND CHALLENGES IN THE POSTAL SECTOR

4.1 STRENGTHS OF THE UPU PRODUCT PORTFOLIO

E-commerce enables consumers to purchase products from all regions of the world, yet the associated logistics predominantly occur locally within the countries. E-tailers import products and store them in warehouses that are strategically positioned across continents by marketplaces such as Amazon and Alibaba to reduce shipping costs for end consumers. Three types of logistics service are implemented, based on product value:

– **Small packets (below 2 kg):** attractive owing to cost efficiency and simplicity in customs control management. Notably, variations in dimensions have a significant impact on prices. Retailers may negotiate with operators to eliminate this dimension-based price difference and provide a consistent cost to customers;

– **Surface airlift:** an appealing option for low-cost purchases, considering the price/value balance;

– **EMS:** recognized for high-quality service, emphasizing prompt delivery and robust tracking.

Across the product portfolio, simple customs clearance procedures for international postal services – employing uniform and standardized documents that cater to all UPU member countries – is viewed as a strength.

4.2 WEAKNESSES OF THE UPU PRODUCT PORTFOLIO

Limited value-added services in the UPU product portfolio

The UPU small packet option (for goods under 2 kg) currently offers limited tracking services, prompting e-tailers to seek alternatives with more robust tracking options, such as PRIME Exprès and Tracked Packet. Even with the addition of tracked delivery, the UPU's tracking is less robust than other market offerings and does not meet expectations in terms of quality and the number of tracking events. Notably, there is no intermediate product between EMS parcels and UPU small packets.

Concerns have been identified with regard to delivery precision and lengthy lead times announced to customers, with a call for more precise delivery windows and shorter delivery times to align with the express delivery standard in the evolving e-commerce landscape. Although the 2 kg limit is not a significant barrier, there is a suggestion that an intermediate EMS product be introduced, particularly in countries with the necessary infrastructure to support international e-commerce growth.

Terminal dues were found to be misaligned with last-mile delivery costs, representing both a strength and a weakness depending on the sender/receiver perspective. Some DOs have established bilateral products with specific countries to address market needs, often extending beyond tariffs to include delivery times and notifications. Bilaterally exchanged products are still expected to make use of UPU standards and documentation. For example, Hongkong Post and China Post have agreed on a bilateral e-commerce product that is independent of UPU terminal dues and offers specific characteristics (e.g. delivery times or notifications).

Concerning parcel products, the study reveals shortcomings in tracking quality, particularly in the e-commerce industry, where surface parcel products attract limited interest owing to extended delivery times. DOs are the only players to have dedicated products below 2 kg for cross-border traffic, whereas other carriers prefer to integrate activities below 2 kg into their broader parcel product range (0–31.5 kg), enabling them to focus on meeting the diverse needs of e-tailers and e-consumers.

Key features for cross-border e-commerce include speed (D+3), comprehensive track and trace, notification prior to delivery, and various delivery services, such as time windows, out-of-home delivery options, Saturday and evening deliveries, signatures, customs clearance, dedicated insurance, money-back guarantees for high-value goods and efficient returns management. Pricing is often structured using a combination of weight breaks (volumetric), destinations and specific features.

Inadequacy of signature integrated into the over 2 kg UPU product

The findings of this study show that customers and e-merchants prefer tracking without the requirement for signature, whether for registered items or parcels. For the UPU products designed for weights over 2 kg, such as EMS and parcels (both airmail and surface), signature is an inherent or embedded component rather than an optional value-added service. This integration or "tight-bundling" of features makes products over 2 kg less competitive on the market.

Competitiveness of bilateral or group-based products

During the interviews, bilateral products were identified – particularly between the Posts of bordering countries, such as Hongkong Post with China Post or La Poste (France) with Correos y Telégrafos (Spain) – that allow for the establishment of deposit facilities. The research also observed the emergence of group-based products aiming to provide customers with value-added services.

Examples include GXG by USPS, which is a tracked group-based product implemented in around 180 countries, guaranteeing delivery in one to three days. Canada Post's popular e-commerce product, PRIME Exprès, offers tracking and delivery confirmation at a lower price than EMS. In comparison, airmail/ECOMPRO products were identified as relatively expensive in terms of delivery speed standards, when compared to alternatives such as PMI.

In mature e-commerce markets, DOs are well informed about the various products available, making strategic choices based on customer needs. Deutsche Post, for instance, does not differentiate between UPU and non-UPU products, instead utilizing all suitable options. On the other hand, Royal Mail allocates 6% of export parcels and 3% of imports to the GLS network, which is non-UPU, with the rest of exports/imports sent using UPU products.

Regional e-commerce

E-commerce is predominantly domestic, with online products often sourced from retailers with warehouses in the same country or a neighbouring country, optimizing shipment time and costs. Marketplaces typically operate regionally to be close to customers, and carrier selection depends on regional presence, partnerships or subsidiaries. For instance, GLS, as a subsidiary of Royal Mail, is used regionally by Royal Mail for exchanges within its European footprint.

Local operators face challenges posed by regional players offering more cost-effective pick-up and delivery services that are less expensive than home delivery. This is particularly notable with regard to small items sold via second-hand e-commerce marketplaces, such as Vinted. The rise of cross-border players offering more affordable shipping options than traditional postal services is notable. For example, Vinted provides parcel delivery at 0.90 EUR through pick-up and drop-off points. While most transactions occur domestically, the expansion of marketplaces on a regional scale is prompting carriers to venture into new geographic markets.

To enhance services, operators are establishing regional facilities to cater efficiently to multiple countries in diverse regional markets.

Consignment

The research revealed that the terms and conditions for applying the consignment service varies among DOs in terms of price, delivery time, added services, customs clearance processes and official documents. Unlike for letter and parcel products, there is no standardized framework managed by the UPU for consignment services. Each DO takes a proactive and individual approach, which is time-consuming and hinders service development. This lack of standardization results in different terms and conditions for customers depending on the destination country. In contrast, private operators offer worldwide coverage, providing consistency regardless of the destination. While it may not be appropriate to make this service mandatory for all DOs, the UPU can emphasize the benefits through communication and training, urging DOs to develop this service to remain competitive in the e-commerce landscape. Widespread adoption of this service could significantly enhance support for e-commerce activities, specifically bulk customs clearance, which would significantly benefit SMEs and small, low-volume countries. It is worth noting that larger countries typically handle such consignments internally.

Cannibalization between products under and above 2 kg

Throughout this study, it was found that, when an e-tailer or consumer seeks supplementary features (such as advanced tracking for a small packet (containing goods)), they are made to choose the parcel product, even if the item weighs less than 2 kg. While one option to prevent cannibalization of parcel products would be to limit additional features on small packets, this approach poses certain risks, including:

- Revenue risks: small packet services lag behind those offered by private competitors in terms of tracking, delivery times, precision, etc.;
- Market confusion: small packets provide the same level of service as parcels, but at a significantly lower price. Some volume may shift from parcels to small packets, as customers might choose the lower-priced option despite being willing to pay for higher-priced parcel products for enhanced service quality.

4.3 OPPORTUNITIES FOR THE UPU PRODUCT PORTFOLIO

Business to consumer for SMEs

The research underscored the increasing participation of SMEs in international e-commerce. For SMEs opting for B2C shipments, UPU products are a cost-effective choice. While international shipping tends to be costly for consumers, particularly for lower-value items, customers may nevertheless be willing to pay higher shipping costs for expensive products such as electronics (e.g. computers and smartphones). In such cases, the selling company typically provides consumers with various shipping options, including proof of delivery, precise tracking, and varied and flexible delivery options. Retailers or manufacturers selling their products directly will select from various international carriers based on service expectations and financial considerations. The UPU, through its EMS standard, provides a viable solution for this type of purchase.

From home address to multiple delivery points

Approximately 80% of French consumers opt for home delivery when making online purchases, while 23% use click and collect, and only 10% choose to collect items from a post office (note that these options are not mutually exclusive).[32] Lockers and pick-up locations in shops are favoured, owing to their proximity and convenient opening hours. The consolidation of deliveries at centralized locations is beneficial for carriers in terms of time and fuel savings, as the need to make a separate stop for every individual parcel is avoided.

In the aftermath of the COVID-19 pandemic, there is intense competition between DOs and wider postal sector players to attract and retain human resources, particularly delivery drivers. This challenge is widespread in developed countries, with disrupted employment markets leading to increased competition for talent in labour-intensive industries, resulting in wage inflation despite narrow profit margins.

End-consumers' openness to paying for greener deliveries and fleet renewal

Growing environmental awareness among consumers is having an impact on e-commerce preferences. In the UK and Belgium, 27% of consumers consider the environmental impact of delivery options, while in the US and Germany, this figure is 20%. Moreover, 62% of Germans, 57% of the French and 44% of Americans viewed e-commerce as an environmental concern in 2022.[33] In France, nearly half the population is willing to pay at least 5% more for a carbon-neutral delivery, with the younger generations showing greater readiness in this regard[34] (63% of young people versus 45% of baby-boomers).[35]

The urban delivery landscape was transformed significantly during the COVID-19 pandemic in view of the combined pressures of tight deadlines and environmental considerations. While the home catering sector had already introduced "light" delivery forms, this trend intensified and extended beyond the restaurant industry across all delivery service providers. These providers now incorporate low-carbon delivery methods, such as hybrid or electric vans, bicycles, electric cargo bikes and electric scooters. Additionally, experimental delivery methods, including autonomous vehicles and drones, are being explored, subject to regulatory restrictions and societal acceptance. These innovations may prove valuable in specific e-commerce sectors, especially those requiring swift, accessible and secure delivery, such as pharmaceutical products in remote areas.

Returns

The prevalent – and now standard – practice of free returns in e-commerce is undergoing reconsideration, in view of its environmental impact and the associated costs for retailers. The convenience of free returns has led to less

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32 FEVAD. *Les chiffres du e-commerce 2023.* (2023).
33 Klarna. Shopping pulse. (2023).
34 Nielsen and SendCloud. Tour d'horizon de la Livraison E-commerce. (2021).
35 Criteo and FEVAD. Shopper story. (2022).

thoughtful ordering by consumers, particularly in the fashion industry, whereby individuals order multiple sizes, keep one, and return the rest for free. Young adults (aged 18 to 24) exhibit higher return rates, with young adults in the UK having a return rate of nearly 16%, compared to 9% for adults aged 25 to 64. Similarly, in France, these figures are 11% and 8% respectively.[36] Fashion brands such as Zara and Boohoo are adapting to this trend by introducing charges for returns.[37]

While some national post offices, such as Canada Post and USPS, offer return-only contracts within their domestic markets, these offers are limited and serve where non-DOs offer delivery without a return service. In other cases, customers typically bear the regular postage costs for returns, and items returned through post offices may not be officially recorded as return items. Despite certain challenges, the surge in parcel returns, influenced by e-commerce growth, presents an opportunity for DOs to provide additional services to e-tailers, particularly in the fashion industry, where customers frequently order and return products and for which volumes vary regionally (see Annex 4).

Data protection

The interviews conducted for this research underscore the significant challenge of data protection for e-tailers, particularly as carriers and DOs bear responsibility for managing customer databases. An opportunity exists for the UPU to establish state-of-the-art IT infrastructure for data exchange among DOs, positioning itself as a trusted third party responsible for a digital data lake or pool. This role aligns with regulations such as the GDPR in the EU and the CCAP in the US, which govern the processing of personal or private data.

4.4 THREATS TO THE UPU PRODUCT PORTFOLIO

Business to business to consumer

Consumers often purchase products online from other countries, owing to price competitiveness or product unavailability within their own country. Cost-sensitive consumers, especially for low-value goods, are particularly affected by shipping expenses. To address this, e-merchants can adopt a B2B2C flow, utilizing container operations for the first segment (B2B) and storing products within the domestic market. While this approach requires significant working capital and certainty of local sales, it allows for lower shipping costs. Alternatively, e-tailers can opt for longer delivery times, consolidating orders to minimize shipping expenses. In both scenarios, the traditional postal service is not the primary means of shipping. For instance, Korea (Rep.) provides a business cargo service, offering handover to a forwarder in various countries. These strategies aim to keep shipping costs low without discouraging online purchases.

36 Alvarez & Marsal. Shape of Retail. (2022).
37 Wunderman Thompson Intelligence. The Future 100: Trends and Change to Watch in 2022. (2022).

Custom clearance services

Delivery operators face challenges with regard to diverse tax regimes across destination countries, coupled with complex regulations and fiscal compliance issues. Customs clearance is pivotal in international e-commerce, prompting major retailers and consolidators to prioritize faster clearance via linehaul for swift entry into domestic markets so as to reduce demurrage and storage costs, which in turn renders their prices more affordable in the domestic market. Consequently, the UPU network is utilized for parallel operations, appealing to smaller operators and private customers who are less concerned about delivery times. Marketplaces streamline customs processes by storing bulk-imported products in large warehouses, catering to one or more countries within a region based on domestic market size. The impact of taxes and regulations is evident in the context of Brexit, with 50% of imports shifting to domestic parcels, which indicates that retailers are seeking alternative import routes (e.g. bulk) but avoiding postal products. Brexit has resulted in a 71% decrease in imported small packets and parcels, compared to pre-Brexit levels.

Fast delivery

The majority of consumers (84%) expect deliveries within one or two days of order[38] and are willing to pay an average supplement of 10% for D+2 delivery, as revealed by Censuswide. A Wunderman Thompson study in 2022 found that 13% of respondents would have liked faster delivery relative to their previous online shopping experiences.[39] Another survey conducted in July and August 2021 found that over half of global shoppers consider delivery speed when making purchase decisions.[40] While same-day delivery is desired, it is contingent on products already being present in the destination country.

38 LSA Conso. *lsa-conso.fr* (2022).

39 Wunderman Thompson Intelligence. *The Future 100: Trends and Change to Watch in 2022*. (2022).

40 Sia Partners. (2021).

5 SUMMARY OF FINDINGS AND RECOMMENDATIONS

Develop physical services to contend with supply chain disruption

Based on this study, it is recommended that postal operators develop physical services that can effectively counter or contend with future disruption to the global supply chain, similar to that witnessed during the COVID-19 pandemic.

To address volume decline during the suspension of import/export chains, the following strategies are proposed:

– Incorporate the international postal transportation network into critical infrastructure plans;

– Utilize the UPU and network of postal partners to coordinate shuttle transportation in cases where point-to-point co-loading is no longer feasible. For instance, if commercial uplift from China to Belize is suspended, organize postal air shuttles from China to Belize, Aruba and Suriname;

– Identify business opportunities arising from supply chain disruption, such as offering temporary transportation for goods that are in demand but not typically accepted, such as prepared meal kits, COVID tests and face masks.

To address the shortage of technical resources necessary for daily operations (e.g. handheld scanners, batteries and spare parts), postal operators can maintain a stock of critical parts and resources, including commodities such as disinfectant and face masks. This ensures resilience against potential shortages and disruptions.

Improve competitiveness of UPU products by adjusting the value/price proposition

The study reveals that, in mature e-commerce markets, the postal network faces challenges in cross-border competitiveness. Origin-based pricing and single-item customs handling contribute to this issue, leading to high margins for the origin company and little incentive for quality delivery by the handling company. Current item-level customs handling incurs high costs for each parcel, while supporting bulk customs clearance offers a competitive advantage. Proposing this model through the UPU could enhance the economic attractiveness of international postal products to e-tailers.

E-commerce products, typically under 2 kg, require similar delivery times and tracking services as larger parcels, but are subject to cost pressures, often being offered at or below actual costs. While small packet products are cost-effective, they provide fewer features. The challenge is to develop a product that is competitively priced while delivering high-quality services and features.

The exchange of customer details and parcel data is subject to challenges owing to data protection regulations, and the decision-making cycle for the UPU and its members may lag behind rapid market transformations. Developing new services and products is crucial, but the diverse interests and local needs of postal operators present challenges. Self-declared rates pose difficulties, prompting various efforts to counteract them. Moreover, there are challenges with regard to other international products owing to misaligned terminal dues and a lack of tracking for UPU letter post (E format). The emergence of B2B2C models limits direct international parcel shipping, leading e-tailers to opt for bulk shipments for streamlined customs clearance and reduced shipping costs.

Support e-commerce growth by providing responses to the new expectations of e-merchants

In the current economic landscape, the postal industry is confronted by diverse challenges that must be addressed in order to develop a product that is competitively priced and offers high-quality service features. The fashion and electronics segments are projected to constitute 46% of the market in 2027, with the beauty, health, personal and household care segment expected to grow by 11% annually. These segments, which are primarily composed of small items, will drive demand for small packets, making it necessary for carriers to provide tailored solutions that align with the expectations of e-tailers and their customers in terms of speed, tracking and pricing.

The UPU is urged to introduce a new product line that utilizes the physical aspects of the letter post for goods product line, offering greater price flexibility and focusing less on dimensions. This new line should incorporate processes similar to EMS, ensuring best-in-class service in terms of delivery speed and tracking, with up to 29 scanning events. As implementing this product line requires IT-intensive processes that are currently unavailable in all member countries, preparation will be necessary, along with measures to encourage widespread adoption to maintain consistent global standards.

For products exceeding 2 kg, the existing EMS system provides top-quality service at a competitive cost compared to international competitors. No substantial improvements are required, with the exception of global availability for all destinations.

The UPU, having established valuable processes and standards for international postal exchanges, possesses a distinct advantage over new players in terms of customs clearance and essential information for international exchanges. Leveraging this knowledge positions the organization as a key player in the evolving international e-commerce market.

ANNEXES

Annex 1: Sample population and description of carriers

Regional markets	*Countries/territories*	*Designated operator*	*Carrier*	*No. of carriers*
Africa	Côte d'Ivoire	La Poste de Côte d'Ivoire		1
Africa	Kenya	Posta Kenya		1
Africa	Namibia	Namibia Post		1
Africa	South Africa	South African Post Office	Aramex	2
Arab countries	Oman	Oman Post		1
Arab countries	Saudi Arabia	Saudi Post Corporation		1
Arab countries	United Arab Emirates		Aramex	1
Asia-Pacific	Hong Kong (China)	Hongkong Post	ZTO	2
Asia-Pacific	Japan	Japan Post	DHL	2
Asia-Pacific	Korea (Rep.)	Korea Post		1
Asia-Pacific	Australia		FedEx/TNT	1
Caribbean	Barbados	Barbados Postal Service		1
Caribbean	Belize	Belize Postal Service		1
Europe	France	La Poste	GLS	2
Europe	Germany	Deutsche Post	GLS	2
Europe	Türkiye		UPS	1
Europe	United Kingdom	Royal Mail	Hermes/Evri	2
Latin America	Brazil		Meli Logistics (confidential)	1
Latin America	Mexico		UPS	1
North America	Canada	Canada Post		1
North America	United States of America	United States Postal Service	UPS	2
				28

Table 3: Sample population for interviews

Description of carriers

Aramex

Aramex started out in 1982 as an express operator, quickly establishing itself as a global brand known for its quality of service and unique, diversified offering. Today, Aramex and its worldwide partners form an extensive transport network spanning the entire globe, with over 350 offices in 60 countries and 200 major cities, and more than 12,800 employees of 82 nationalities. Aramex provides international and domestic express transport, freight forwarding, transit operations, logistics and other transport services throughout the world. Since 2011, Aramex has been expanding its activities in south-east Asia, Africa and other emerging countries.

ZTO

ZTO Express is a transport logistics company that handles large-volume parcels or shipments and deliveries. The company is of Chinese origin, founded in 2002 and headquartered in Hong Kong. ZTO Express is one of the largest companies in the country and on the entire Asian continent.

DHL

DHL International GmbH (named for its creators, Dalsey, Hillblom and Lynn) is a parcel and courier company founded in the US and owned by Deutsche Post since 2002. The Deutsche Post DHL Group is the world's largest logistics company, operating in 220 countries and territories. The company claims to transport 1.614 billion parcels every year and has around 400,000 employees and managers worldwide.

FedEx/TNT

TNT Express specializes in express delivery services for documents, parcels and palletized freight, with its headquarters in Hoofddorp (Netherlands). Under the name TNT Post, the company was formerly the Dutch national postal service operator. The group also offered services in eight other European countries, including the UK, Germany, Italy and Belgium.

TNT Express was purchased by FedEx (Federal Express) in May 2016. It operates in 61 countries, making one million deliveries worldwide every day. TNT Express operates its own road and air transport networks in Europe, the Middle East, Africa, Asia-Pacific and the Americas.

GLS

GLS (General Logistics Systems) is a Dutch logistics company based in Amsterdam and founded in 1999. It is a subsidiary of Royal Mail. GLS covers 42 European countries through its own subsidiaries and partners. In addition, GLS is present in Canada and nine US states, and has worldwide links through contractual alliances.

UPS

UPS (United Parcel Service) is one of the world's largest shipping and logistics companies. UPS provides global shipping solutions for buyers and sellers worldwide, and even offers same-day delivery options in some regions. The company manages the shipment of packages through its air fleet, and also has a last-mile fleet for delivery of packages. UPS covers more than 220 countries.

Hermes/Evri

Hermes is an international courier and logistics company based in Hamburg, Germany. Today, Hermes represents market-leading logistics and trade services, and maintains partnerships with a growing number of international logistics providers operating in the e-commerce sector. Hermes is best known for its shipping services, which have made the brand what it is today. On 11 March 2022, the Hermes Group announced that the company would change its name to Evri.

Jadlog

The Jadlog network is a key player in the Brazilian parcel delivery market, with links to the DPDgroup international network. This international network is an important asset, giving Brazilian customers access to the global market.

Annex 2: **Effigy sources and examples of public sources**

Consulting firm	*Expertise*	*Methodology*	*Database*
Effigy Consulting	Effigy Consulting has 20 years of expertise in postal services, logistics management, e-commerce analysis and strategic consulting, including innovative value-added strategies for transportation businesses and networks.	Effigy Consulting has a proven methodology to build CEP market research, including drill-down on postal activities with an analytical approach focused on data collection, carrier profiling, market trends, etc.	Effigy Consulting has created an extensive and accurate CEP market database that includes leading postal operators and parcel carriers on a global, regional and national scale.
Sia Partners	Sia Partners has conducted numerous business assignments for logistics companies, with over 20 years in strategic consulting in areas including strategic vision, business plans, market studies, new strategic offers, economic models, revitalization of existing offerings and asset improvement.	Examples of past data capture missions relate to price lists of offerings, pricing, product benchmarking (based on e-commerce platforms), market analysis and specific skills development.	Sia Partners uses artificial intelligence for scraping capacity and data capture to collect postal offerings and trends from targeted websites (e.g. DO websites).

Table 4: Effigy Consulting and Sia Partners databases and tools

Type of public source	*Examples*
Public data from postal operators and competitors	– Postal operator or competitor websites and online communications – Annual reports
Postal ecosystem publications and studies	– Specific business websites (companieshouse.com, Dun & Bradstreet, etc.) – University publications and theses – Expert newspapers, articles, collective agreements
Government sources	– Chambers of commerce, public schemes – Regulatory documentation
Groups of companies or organizations	– Organizations (e.g. the FEVAD in France – federation of e-commerce and distance selling)

Table 5: Examples of public sources

Annex 3: **Currency exchange rate evolution (2017–2027)**

Year	*EUR–SDR exchange rate*
2017	0.882081
2018	0.857938
2019	0.849304
2020	0.848156
2021	0.835801
2022	0.839287
2023	0.834804
2024	0.834391
2025	0.828109
2026	0.822657
2027	0.817969

Table 6: Exchange rates used in the report

Annex 4: **Volume of returns per region**

REGION	*OPERATORS*	*VOLUME OF RETURNS*
Asia-Pacific	DHL Japan	7.2% are returns marked "I don't want this" for no specific reason
	ZTO China	< 1%
	Hongkong Post	4%
	FedEx Australia	1.3%
Latin America	Jadlog	~ 5%
	UPS Mexico	2.5%
Europe	GLS Germany	3.6% + 2.5% additional volume returned by other carriers
	GLS France	3%
	La Poste Group	Marginal
	Royal Mail	2%
	Evri	5.2%
North America	UPS US	1.8%
Africa	Aramex South Africa	3% (most customers return items via SAPO)
	Namibia Post	No returns – volumes too low
Arab countries	Aramex UAE	0.6% (returns probably contracted by other carriers)

Table 7: Volume of returns per region

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