



LITERATURE SERIES

Economics and Logistics

Study Summary

Logistics in Retail and Wholesale Structures, Success Factors, and Trends

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Summary

The study “Logistics in Retail and Wholesale – Structures, Success Factors, and Trends” was carried out by the Hochschule für Technik und Wirtschaft Berlin and 4flow. The complete study can be ordered (in German only) from BVL International (www.bvl.de/schriften).

1 Introduction

Success – The Topic of This Study

“Success is the achievement of the goals you set.” This sentence shows the dilemma of determining what success is. Success depends on the goals that businesses or individual people set.

Does it make sense to inquire about the “success factors for logistics in retail and wholesale” when defining success is not easy in itself? The study titled “Logistics in

Retail and Wholesale – Structures, Success Factors, and Trends” ventures to do exactly this and takes the variability of what success means into consideration.

Moreover, a second challenge is tackled in this study: the great variety found in the commerce sector. Commerce includes both the wholesale and retail sectors, large corporations and medium-size companies

that have a domestic and regional focus, local specialty stores, and online retailers. In addition, the goods traded in commerce span from fresh tomatoes, living animals, and television sets to coal and steel. The study illustrates specific segments, but the focus is on retail and wholesale commerce as a whole.

Goals and Study Outline

The study aims to identify, verify, and compare success factors for logistics in retail and wholesale. In order to determine what the success factors are, a series of questions have to be answered: How do wholesalers and retailers define “success”? How can this be developed into a definition of success for retail and wholesale logistics? Once these two questions have been answered, it will then be possible to go back to the original question regarding success factors.

Based on 20 interviews with experts from the retail and wholesale sector, key performance indicators for success, fields of activity, success factors, and trends in retail and wholesale logistics were identified, evaluated, and classified. The interview results served as the basis of an online survey in which more than 50 retail and wholesale experts participated so that the interview results could be verified and developed further.

“Logistics in Retail and Wholesale – Structures, Success Factors, and Trends” focuses on wholesalers and retailers in Germany, and shows

- what the the sector comprises and how it is structured (Chapter 2),
- what the special characteristics of logistics for wholesale and retail are,

and how wholesale and retail can be segmented in regard to retail and wholesale logistics (Chapter 3),

- what success in retail and wholesale logistics constitutes (Chapter 4),
- which factors need to be taken into account to be successful (Chapter 5), and
- which trends companies need to get ready for in order to stay successful in the future (Chapter 6).

The findings based on empirical data are discussed in Chapter 7, along with ways for companies to boost their success through retail and wholesale logistics.

The study concludes by taking a look at the trends that are likely to shape retail and wholesale logistics in the future.

Chapter 1	Introduction
Chapter 2	Functions and Structures in Commerce Functions of Commerce • German Market in Numbers • Market Segmentation • Wholesale and Retail • E-commerce
Chapter 3	Logistics in Retail and Wholesale Importance of Logistics in Retail and Wholesale • Logistics Services in Retail and Wholesale • Logistics Segmentation • Logistics Service Providers in Retail and Wholesale
Chapter 4	How Logistics in Retail and Wholesale Contributes to Company Success Definitions of Success Among Retailers and Wholesalers • Successful Characteristics in Logistics for Retail and Wholesale
Chapter 5	Success Factors for Logistics in Retail and Wholesale Logistics Staff • Information Technology (IT) and Logistics Equipment • Supply Chain Management • Logistics Networks and Service Providers
Chapter 6	Trends in Logistics for Retail and Wholesale E-commerce • Mobile Internet • Consumer Requirements • Demographic Shift • Cost Pressure • Sustainability
Chapter 7	Discussion
Chapter 8	Outlook

1 | Overview of key topics featured in “Logistics in Retail and Wholesale – Structures, Success Factors, and Trends”

2 Roles and Structures of Retail and Wholesale

Roles of Retail and Wholesale

One basic role that retail and wholesale logistics plays is balancing or acting as a bridge between supply and demand.¹ Manufacturers and consumers are not usually situated in close proximity to each other. Bridging together an actual physical distance is the function that wholesalers and retailers are tasked with. The bridging of this physical distance is closely linked with bridging time as a function. The time

between manufacturing and consumption is occupied by storing the goods at a warehouse.

Offering an assortment is a further key task performed by wholesale and retail.² Wholesale and retail bundle the range of goods produced by different manufacturers into one assortment for the benefit of the consumer thus reducing order

fulfillment costs for the consumer. It also prevents the sale of small quantities and gives consumers access to different products at one location. The costs for the consumer are also reduced by the middleman function that retail and wholesale play by offering competing goods from different manufacturers.³

The Role of Retail and Wholesale in Supply Chains

Traditionally, commerce is broken down into two segments: retail and wholesale. In doing so, retail deals with end customers (focus on private consumers), while wholesale generally does not interact with private consumers, but rather with manufacturers, retailers, or bulk consumers and

other commercial consumers such as the restaurant industry.⁴

The multi-echelon structure of the supply chain continues to decrease in importance, however, since many large retailers are supplied directly by manufacturers. In compar-

ison direct sales is increasing in importance as a result of e-commerce. It was not until the Internet became so widespread that manufacturers were able to sell directly to end customers. Selling directly through manufacturers' own flagship stores is increasing.

The German Retail and Wholesale Sector in Numbers

The importance of retail and wholesale is represented by a total revenue of about €1.5 trillion (2013).⁵ In comparison: Vehicle and parts manufacturing in Germany results in an annual total revenue of approximately €400 billion (2013).⁶ The gross value added of retail according to total macroeconomic calculations is approximately €190 billion.⁷ The share of retail and wholesale in the gross value added is about 8%.

	Retail ⁸	Wholesale ⁹
Revenue	€457 billion	€1.01 trillion
Number of companies	316,000	109,000
Employees	2.27 million	1.35 million
Percentage of part-time employees	46%	14%

T 1 | Comparison of wholesale and retail trade (Revenue and employee data from 2013, otherwise 2012)¹⁰

Wholesale comprises two-thirds of all retail and wholesale commerce in Germany. In comparison, wholesale gets its revenue from a much smaller number of companies than retail, which can be attributed to the different structures of both segments in regard to company size. In the wholesale sector, medium-sized companies contribute the largest share of total revenue. Although large retail chains dominate with their share of revenue, at the same time

there is a large number of small businesses.

More than 90% of all retail revenue is generated from brick-and-mortar business. Totalling more than €210 billion in 2013, the sale of groceries and health and personal care products represented more than half of all brick-and-mortar retail revenue.¹¹ In wholesale, B2B commerce makes up around 60% of revenue. This includes the revenue of the wholesalers that conduct

business between production steps in supply chains. The remaining 40% is generated by consumer goods business, which includes supplying retail and other commercial customers with goods for resale.¹²

3 Logistics in Retail and Wholesale

The Importance of Retail and Wholesale Logistics

Logistics is a core competency of commerce and facilitates executing the basic functions of bridging time and space and providing an assortment. At the same time, the importance of retail and wholesale

logistics can also be put into quantitative terms. At an estimated €64 billion¹³, commerce accounts for almost 30% of all logistics costs in Germany,¹⁴ which were estimated to be about €223 billion in 2011.¹⁵

The automotive industry on the other hand accounted for a comparatively smaller share of 11% during the same period.¹⁶

Logistics Services in Retail and Wholesale

Logistics of retail and wholesale companies consists of procurement logistics, warehouse logistics, distribution logistics, and store logistics. In order to perform these functions, administrative processes and

basic operational logistics services such as transportation, handling, warehousing and picking have to be carried out.¹⁷ A major share of the logistics services that are performed in the retail and wholesale sectors

include standard services such as transportation for procurement and distribution as well as storage and picking of palletized products.¹⁸

Specific Requirements for Technical Logistics

Some groups of products call for specific requirements for operational processes and need specialized logistics equipment. Buying and selling temperature-sensitive products requires a constant cold chain, for instance, and calls for specialized warehousing and transportation technology. Transportation equipment including refrigeration units, multi-zone vehicles and temperature-controlled warehouses and hubs are relied upon. Using insulated shipping containers and sensors to control and monitor temperature is also common practice. Products that can spoil easily need to be stored based on the first-in-first-out-principle (FIFO) or when considering the expiration date, products need to be stored based on the first-expired-first-out principle (FEFO). Moreover, food logistics requires

adherence to specific hygiene standards.

In addition to fresh foods and frozen groceries, some chemicals and pharmaceutical products require refrigeration, which shows that cold chains are not only important in food logistics. For the warehousing and transportation of chemical products and for some consumer goods such as laundry detergent and products packaged in aerosol cans, hazardous materials requirements need to be adhered to.

Clothing and textiles are often hung or rolled up when delivered to stores in order to avoid wrinkling or repackaging at the store. In the furniture, household goods, and home improvement segments, some products are often so large that they

cannot be palletized. Special equipment to transport and transfer loads and in some cases a two-man handling process are then necessary. The same applies in wholesale when handling machinery and semi-finished products.

When bulk materials and large amounts of fluids are to be transported, transferred, and warehoused, an even more specialized degree of logistics is required. Along the entire supply chain, special solutions such as silos, tanks, and specific handling equipment are used. For the most part, these extensive logistics requirements need to be considered for the wholesale trade of raw materials.

Challenges Posed by Broad Assortments and E-commerce

A trend towards broader assortments can be observed in the food retail business. The number of products in the fresh and dry foods assortment at discount supermarkets, for instance, increased by an average of 9%¹⁹ from 2007 to 2012 and by almost 22%²⁰ at premium supermarkets.

An expansion of the assortment requires logistics processes and systems that are engineered to be flexible. The requirements on logistics rise again, when not only a group of goods are involved, but also when department stores and online shopping portals add a substantial number of

products to their assortment that require specific equipment or shipping frequencies. In order to handle this variety of products, sometimes it is necessary to operate multiple supply chains parallel to each other.²¹ For e-commerce in which end customers are involved, it is necessary to ensure order

fulfillment, handling, delivery, returns processing in the same way they are offered for conventional mail-order shipping. The large amount of returns means that

receiving and processing returns has to be engineered into the logistics processes. Moreover, in connection with e-commerce, the importance of multi-channel

approaches and the operation of different supply routes in retail and wholesale are increasing.

4 How Logistics Contributes to Company Success in Retail and Wholesale

Characteristics of Logistics in Retail and Wholesale that Influence Success

The success of wholesalers and retailers is primarily measured based on three factors: profit, growth of revenue or market share, and customer satisfaction. For a large portion of the logistics decision makers surveyed for “Logistics in Retail and Wholesale – Structures, Success Factors, and Trends”, profit is the business objective given the highest priority. How can logistics contribute to the achievement of these objectives? Four characteristics in retail and wholesale logistics that are key for performance were identified through the interviews with experts:

- **Logistics quality** is primarily described as product availability for customers, delivery punctuality, delivery accuracy, delivery time and reliability.
- **Flexibility** includes responsiveness and agility in operational processes along with flexibility in regard to quantity in order to adjust processes and capacities to meet changes in demand.
- **Cost efficiency** is the ability to provide logistics services in a manner that conserves resources and minimizes the cost of providing services.
- The ability to **innovate processes** makes it possible for logistics in wholesale and retail to be prepared for changes in requirements through optimization and the engineering and development of new processes.

Logistics Quality: Good Logistics “Doesn’t Stand Out”

Wholesalers and retailers often make statements along the lines of: “If I don’t

hear anything about logistics, then they’ve done their job right.”²² The first objective is thus avoiding disruptions to the logistics processes. Delays and mistakes in the fulfillment of store and customer orders lead to limited product availability, lower delivery reliability, and longer delivery times. In contrast, a high level of logistics quality measured for instance by on-shelf availability, increases customer satisfaction.

Flexibility: Good Logistics Creates Opportunities

Flexibility also makes a contribution to higher customer satisfaction by quickly responding to individual customers’ requests. Flexibility is also very significant for the success factor of revenue growth so that demand fluctuations in the existing network can be covered and if necessary the network can be expanded quickly and at a low cost. Flexibility is thus a prerequisite for achieving revenue growth, for example by expanding into new sales regions, introducing new product groups, or establishing new sales channels.

Cost Efficiency: Good Logistics Shouldn’t Cost a Fortune

Since the total share of logistics costs is higher in retail than in manufacturing,²³ the influence that logistics has on profit is accordingly large. The impact of logistics is magnified because logistics influences the efficiency of other business processes. The influence of cost efficiency on customer satisfaction and growth is less important and even negative in some cases.

Process Innovation: Good Logistics Continuously Improves from the Inside Out

The ability of logistics to adjust to changing market conditions, customer requirements, or fluctuations in demand can only be achieved by the flexibility of existing structures to a limited degree. When requirements change to a larger degree, processes, networks and the organization of logistics have to be developed further, and possibly even reengineered. The ability of logistics to innovate processes is important here.

How Logistics Affects Company Success

Retail and wholesale logistics' four characteristics of success (logistics quality, flexibility, cost efficiency, and process innovation) influence a company's key performance indicators. Figure 2 shows how strongly the four characteristics influence the key performance indicators as perceived by the retail and wholesale experts surveyed online. Hence, logistics can influence growth, profit, and customer satisfaction.

Performance Indicator	Characteristic of Logistics in Retail and Wholesale			
	Logistics Quality	Flexibility	Cost Efficiency	Process Innovation
Revenue Growth	2,2	2,1	2,0	1,5
Profit	2,1	2,0	2,3	1,6
Customer Satisfaction	2,6	2,1	1,7	1,6

0 = No influence 1 = Limited influence 2 = Substantial influence 3 = Decisive influence

T 2 | Experts' perception of the influence the four retail and wholesale logistics characteristics have (Source: Online survey)

5 Success Factors of Retail and Wholesale Logistics

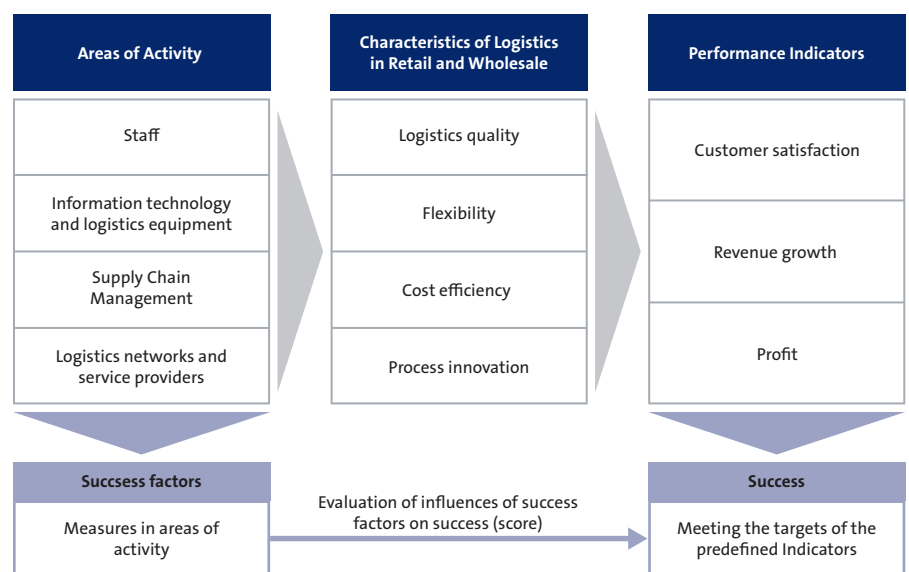
The opportunities presented by retail logistics to influence a company's success across all segments are called success factors in "Logistics in Retail and Wholesale – Structures, Success Factors, and Trends". These success factors are associated with the areas of logistics staff; information technology (IT) and logistics equipment; supply chain management; and logistics networks and service providers.

In order to assess the effect success factors have on a company's success in the retail and wholesale sector, a multi-echelon causal relationship model connects key performance indicators for success, characteristics of wholesale and retail logistics, and shows how they relate to each other (cf. Figure 2).

The participants of the online survey evaluated the influence each success factor has on the four characteristics and ranked the influence the success factors have on success. Based on that, a scoring value was calculated that quantifies the influence a success factor has on the success of a wholesale or retail company. The study explores whether companies whose success is above-average weigh the success factors differently than less successful companies.

support company success through people, organization, and technology can be derived from the success factors. At the same time, current developments in retail are resulting in new requirements that logistics professionals need to prepare for. With the increasing use of mobile devices for online shopping, for instance, the importance of quality and flexibility in logistics rises as well and businesses need to give proof of their ability to innovate.

In the complete version of "Logistics in Retail and Wholesale – Structures, Success Factors, and Trends" (in German only) extensive market analyses of wholesale and retail sectors and of retail logistics can be found, as well as the detailed results on success factors in retail logistics and measures for retail logistics, retailers, and wholesalers to take in order to succeed in the market in the future. In addition, trends affecting retail logistics are examined.



2 | The effect success factors have on company success in logistics for retail and wholesale

Specific recommendations for logistics to

Endnotes

- ¹ Cf. Oberparleiter, 1955
- ² Cf. Seyffert, 1972
- ³ Cf. Buddeberg, 1959 and Seyffert, 1972
- ⁴ Cf. verdi, 2012
- ⁵ Trade includes wholesale trade excluding cars and middlemen as well retail excluding cars, gas stations, and fuel.
- ⁶ Source: German Federal Statistical Office (Publisher), 2014d
- ⁷ Source: German Federal Statistical Office (Publisher), 2014c, Forecast for 2013 and own calculation
- ⁸ Source: German Federal Statistical Office (Publisher), 2014a; German Federal Statistical Office (Publisher), 2014e; Own calculations Retail trade excluding gas stations (sale of fuel), excluding fuel sales and cars, but including pharmacies.
- ⁹ Source: German Federal Statistical Office (Publisher), 2014b; German Federal Statistical Office (Publisher), 2014e; own calculations; from this point on: Wholesale trade excludes trade agents and car revenue
- ¹⁰ Source: German Federal Statistical Office (Publisher), 2014a; German Federal Statistical Office (Publisher), 2014b; German Federal Statistical Office (Publisher), 2014e; Own calculations
- ¹¹ Source: German Federal Statistical Office (Publisher), 2014a; German Federal Statistical Office (Publisher), 2014e; Own calculations
- ¹² Source: German Federal Statistical Office (Publisher), 2014b; German Federal Statistical Office (Publisher), 2014e; Own calculations
- ¹³ In order to calculate the amount of total logistics costs, data was used from the Federal Statistical Office based on results from the study “Die Top 100 der Logistik 2012/2013” from Fraunhofer SCS (cf. Kille and Schwemmer, 2012).
- ¹⁴ The total logistics costs include, among others, contract logistics, FTL, LTL, KEP, Bulk cargo, Sea freight, Air cargo and TUL-Processes (including both insourced and outsourced shares).
- ¹⁵ See Kille and Schwemmer, 2012
- ¹⁶ Includes Automobile production, other vehicle manufacturing and vehicle trade, does not include the machine building industry
- ¹⁷ For a description of basic logistics services see Gudehus, 2005, Chapter „Aufgaben und Aspekte der Logistik“
- ¹⁸ See Straube and Pfohl, 2008
- ¹⁹ Source: EHI Retail Institute, 2013a
- ²⁰ Source: EHI Retail Institute, 2013b und EHI Retail Institute, 2013c
- ²¹ See examples of supply chain segmentation in the food industry by Kuhn and Sternbeck, 2011
- ²² See Seeck, 2010
- ²³ See Straube and Pfohl, 2008

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BVL International (Bundesvereinigung Logistik)

BVL International, founded in 1978, is an independent non-profit organization of supply chain and logistics professionals. As a platform for logistics managers with 10,000 members, it aims to build a bridge between business and academia and is a medium for national and international exchange among executives and newcomers. BVL International stands for holistic thinking. Its goal is to educate the public on the

importance of logistics and supply chain management and to advance theories in this area. It offers supply chain managers and logistics experts the ideal platform for professional exchange in over 300 regional, national and international events each year. Research committees and studies are other tools the BVL uses. For years, retail logistics has played a role in the BVL International Supply Chain Conference. Using par-

ticipation in collaborative events and this study, BVL International sets an important mark in this field.

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