Methodology
E-Commerce Hub Index from Unzer

The aim of the study is a comparative assessment of the local conditions for running an e-commerce business. The object of investigation are all member states of the European Union (as of 2022).

For the study, all EU member states were evaluated in four fields of analysis: market, infrastructure, consumers, and skilled workers. A total of 14 influencing factors, which are described below, contribute to the final result of the study. All influencing factors were selected because they contribute in their respective form to the successful operation of an e-commerce business.

The result is a ranking of the countries that offer the best conditions for running an e-commerce business (as of February 20, 2022).

Fields of investigation, influencing factors, and sources

Field of investigation 1: Market

An already established and flourishing e-commerce market suggests very good basic conditions for online retailers. In order to evaluate the EU markets, the most recent annual sales figures for the entire industry were therefore first evaluated. Information about e-commerce that does business exclusively domestically or domestically as well as in other EU countries also serves as an indicator of the attractiveness of the market for online commerce. The same applies to data about online retailers with their own online shop.

- Turnover: Information on the annual e-commerce turnover (2021) in the surveyed markets was taken from the "2021 European E-Commerce Report" (Lone, S., Harboul, N. & Weltevreden, JWJ (2021). 2021 European E-commerce Report Amsterdam/Brussels: Amsterdam University of Applied Sciences & Ecommerce Europe).

- Domestic e-commerce: Information on the percentage of retail companies that also sell their goods online, but only domestically, was taken from the EU database eurostat.

- E-commerce abroad: Information on the percentage of retail companies that also sell their goods online, both domestically and to other EU countries, was taken from the EU database eurostat.

- Online shop: Information on the percentage of retail companies that sell their goods via their own online shop was taken from the EU database eurostat.

Field of investigation 2: Infrastructure

Shipping is one of the success factors of e-commerce. For this reason, online retailers are dependent on an efficient postal and shipping infrastructure that is as cheap as possible. Therefore, the performance of the postal sector, as assessed by the Universal Postal Union, was included in this field of study, as well as the average expenditure for a parcel sent domestically. Other essential infrastructural necessities are cheap commercial space and fast internet, which were therefore also taken into account in this field of study.

- Post: Information on postal performance was extracted from the Universal Postal Union's Integrated Index for Postal Development (2020), an industry-standard indicator. The indicator compares the development of the international postal sector. Key issues are reliability, reach, demand, and resilience.

- Shipping costs: Information about the average shipping costs for a parcel (domestic shipping, standard rate, 1 kg weight) was taken from the EU service portal Your Europe.

- Commercial space: Information on the average rental price of a commercial property (office space, yearly, per square meter) for all countries except Cyprus, Slovenia, Croatia, Malta, and Bulgaria was taken from the European Office Market 2020 report by real estate consultants BNP Paribas. Other sources include Cyprus Profile for Cyprus, Remax Commercial for Slovenia, the Zagreb Office Market Review from Propertas for Croatia, Office Space.Rent for Malta, and Vitosha Properties for Bulgaria.

- Internet: Information about the country's average internet speed (in Mbit/s, February 2022) was taken from the Speedtest Global Index.

Field of investigation 3: Consumers

An analysis of the target group is essential before starting an e-commerce. One factor here is the degree of digitisation of consumers and potential customers. Therefore, the study included the proportion of the population that uses the internet, shops online, and uses online banking in the assessment.

- Internet users: Information on the percentage of the population using the internet (2021) was taken from the EU eurostat database.

- Online shoppers: Information on the percentage of the population that shopped online (2021) was taken from the EU eurostat database.

- Online banking: Information on the percentage of the population using online banking (2021) was taken from the EU eurostat database.

Field of investigation 4: Skilled workers

A successful online shop requires a team of professionals with different skills. From technical and content maintenance to marketing, control and communication, running an online shop involves many disciplines. In order to assess the skilled labour potential of the EU countries, the study evaluated the proportion of skilled workers. From an economic point of view, the local purchasing power and labour productivity were relevant factors and were also evaluated.

- Skilled workers: Information on the percentage of the population (aged 20-24, 2019) with a high school diploma was taken from the EU database eurostat.

- Purchasing power: Unlike gross domestic product, purchasing power takes into account local differences in price levels to describe the economic activity of an economy. The unit is therefore well suited for comparing the volume of the various sales markets. Information on purchasing power (GDP per capita in Purchasing Power Standard, 2020) was taken from the EU database eurostat.

- Productivity: Labour productivity per hour worked describes the actual production output from GDP and the amount of labour units used (measured against the total number of hours worked). Measured labour productivity per hour worked provides a more accurate picture of productivity trends in the economy as it eliminates differences between full-time and part-time workers across countries. Information on labour productivity was taken from the EU database eurostat.

Calculation and Points

A standardisation procedure based on a points system was used to calculate the ranking. This means that the results of the individual influencing factors were standardised on a scale between 0-100. The market that performed best in the selected influencer received a score of 100. The market that performed the worst in the selected influencer received a score of 0. All other markets ranked in between according to their results and also received a score between 0 and 100.

Then all points from all influencing factors of an investigation field were added up. The sum gave the examination field result. Finally, all four examination field results were added and this final result was also standardised on a point scale between 0 and 100.

The calculation was made using the following normaliation formula: $x\ new = \frac{(x - x\ min)}{(x\ max - x\ min)}$

E-Commerce Hub Index: Full data

		Market									Infrastructure									Consumers							Skilled workers						
#	EU Market	Turnover		Domestic e-commerce		E-commerce abroad		Online shop		Market Evaluation	Post		Shipping costs		Commercial space		Internet		Infrastructure Evaluation	Internet users		Online shoppers		Online banking		Consumer Evaluation	Skilled workers		Purchasing power		Productivity		Skilled Worker Evaluation	Total
	Unit	bn. €	100-0	%	100-0	%	100-0	%	100-0	100-0	2IPD	100-0	€	100-0	qm/Year in €	100-0	Mbit/s	100-0	100-0	%	100-0	%	100-0	%	100-0	100-0	%	100-0	GDP in PPS	100-0	GDP/PP/hr	100-0	100-0	100-0
1	NLD	27.9	22.5	27	57.1	13	69.2	24	76.2	**77.0**	92.7	95.4	5.56	52.9	460	56.1	117	83	**100.0**	95	81.0	89	96.6	91	95.0	**90.8**	82	35.2	39,600	37.2	108	40.7	**31.8**	**100.0**
2	IRE	8.8	7.0	39	100.0	12	61.5	29	100.0	**91.9**	68.4	52.8	8.15	22.1	670	28.0	65	23.2	**0.0**	99	100.0	87	93.1	77	77.5	**90.2**	94	86.3	62,400	73.8	195	100.0	**100.0**	**92.8**
3	AUT	9.6	7.7	29	64.3	17	100.0	23	71.4	**83.2**	95.4	100.0	3.99	71.6	306	76.6	67	25	**91.2**	93	71.4	63	51.7	71	70.0	**64.4**	87	57.1	37,200	33.4	115	45.6	**42.4**	**92.5**
4	DNK	22.7	18.3	36	89.3	15	84.6	29	100.0	**100.0**	46.5	14.6	8.07	23.0	281	80.0	132	100	**56.7**	99	100.0	91	100.0	95	100.0	**100.0**	76	6.9	40,300	38.4	118	47.0	**22.1**	**91.4**
5	SWE	12.8	10.3	34	82.1	11	53.8	26	85.7	**79.3**	62.3	42.2	3.86	73.2	676	27.2	120	86	**63.7**	97	90.5	87	93.1	84	86.3	**89.9**	85	45.5	36,800	32.7	111	42.5	**35.3**	**87.1**
6	FRA	123.4	100.0	18	25.0	7	23.1	14	28.6	**60.3**	86.6	84.7	3.28	80.1	880	0.0	124	90	**80.0**	93	71.4	76	74.1	72	71.3	**72.3**	89	62.2	31,200	23.8	117	46.9	**40.9**	**81.1**
7	GER	99.9	81.0	20	32.1	11	53.8	16	38.1	**70.1**	94.2	98.0	3.53	77.1	480	53.4	87	49	**93.5**	92	66.7	76	74.1	50	43.8	**61.5**	78	15.0	36,600	32.4	103	37.2	**18.6**	**77.0**
8	FIN	5.8	4.6	28	60.7	8	30.8	22	66.7	**55.6**	59.6	37.5	4.76	62.5	420	61.4	89	51	**53.2**	97	90.5	79	79.3	93	97.5	**89.1**	88	60.9	33,800	27.9	107	39.9	**39.0**	**74.2**
9	LTU	0.8	0.6	34	82.1	13	69.2	16	38.1	**64.9**	58.6	35.7	3.15	81.6	192	91.8	86	48	**81.0**	88	47.6	60	46.6	72	71.3	**55.1**	93	79.4	26,000	15.4	79	20.3	**32.7**	**72.9**
10	BEL	9.7	7.8	30	67.9	16	92.3	24	76.2	**83.5**	72.3	59.8	10.00	0.0	315	75.4	82	43	**32.0**	94	76.2	75	72.4	75	75.0	**74.5**	86	49.8	35,500	30.7	129	54.9	**42.1**	**72.3**
11	CZE	12.5	10.0	25	50.0	12	61.5	20	57.1	**61.0**	68.3	52.6	3.90	72.7	276	80.6	67	24.9	**64.9**	90	57.1	75	72.4	73	72.5	**67.4**	88	61.4	27,800	18.3	85	24.8	**27.8**	**67.7**
12	SVN	0.5	0.3	25	50.0	14	76.9	17	42.9	**58.1**	56.2	31.5	3.89	72.8	130.8	100.0	72	31.5	**68.0**	90	57.1	71	65.5	57	52.5	**58.4**	92	79.0	26,500	16.2	83	23.2	**34.2**	**66.7**
13	HRV	0.8	0.5	29	64.3	13	69.2	22	66.7	**68.6**	58.4	35.4	1.61	100.0	177	93.8	58	14.9	**7.1**	82	19.0	57	41.4	56	51.3	**37.2**	97	100.0	19,200	4.5	73	16.5	**35.4**	**65.0**
14	EST	1.7	1.3	22	39.3	9	38.5	18	47.6	**43.2**	62.0	41.7	4.11	70.2	210	89.4	69	27.2	**63.5**	92	66.7	70	63.8	82	83.8	**71.4**	85	46.4	25,200	14.1	79	20.5	**16.9**	**57.0**
15	ESP	82.1	66.6	28	60.7	9	38.5	21	61.9	**77.8**	58.0	34.7	8.89	13.2	435	59.4	116	82	**39.0**	94	76.2	67	58.6	65	62.5	**65.8**	74	0.0	25.200	14.1	99	34.1	**1.7**	**52.6**
16	MLT	0.1	0.0	28	60.7	14	76.9	25	81.0	**74.7**	44.0	10.2	7.25	32.8	240	85.4	93	55	**35.4**	88	47.6	65	55.2	63	60.0	**54.3**	79	19.7	28,900	20.1	94	31.2	**12.2**	**49.4**
17	POL	24.8	20.0	18	25.0	6	15.4	13	23.8	**28.6**	71.1	57.5	4.63	64.0	288	79.0	81	42	**71.8**	87	42.9	61	48.3	52	46.3	**45.8**	91	72.1	22,600	10.0	80	21.1	**27.2**	**48.1**
18	HUN	2.3	1.8	20	32.1	7	23.1	16	38.1	**32.3**	58.5	35.6	6.18	45.5	300	77.4	116	82	**70.8**	89	52.4	66	56.9	56	51.3	**53.5**	87	54.1	22,100	9.1	71	15.0	**15.6**	**47.6**
19	LUX	0.5	0.3	11	0.0	7	23.1	8	0.0	**7.7**	38.1	0.0	8.40	19.1	600	37.4	115	81	**6.8**	99	100.0	81	82.8	72	71.3	**84.7**	78	15.0	78,700	100.0	162	77.6	**68.7**	**45.9**
20	SVK	1.1	0.8	16	17.9	7	23.1	13	23.8	**22.2**	64.3	45.8	5.88	49.1	204	90.2	68	26.7	**53.1**	90	57.1	75	72.4	58	53.8	**61.1**	90	68.2	20,900	7.2	73	16.6	**22.0**	**42.0**
21	LVA	0.3	0.2	16	17.9	7	23.1	13	23.8	**22.0**	40.9	4.8	3.83	73.5	192	91.8	76	36	**49.7**	92	66.7	62	50.0	80	81.3	**66.0**	87	56.2	21,000	7.4	69	13.5	**15.1**	**39.6**
22	CYP	0.3	0.2	18	25.0	8	30.8	16	38.1	**32.0**	56.3	31.7	6.57	40.9	180	93.4	53	9.7	**30.7**	91	61.9	54	36.2	65	62.5	**53.5**	92	78.5	26,400	16.1	83	23.6	**34.1**	**38.7**
23	POR	8.5	6.8	16	17.9	8	30.8	12	19.0	**25.3**	63.6	44.5	4.39	66.9	300	77.4	92	54	**72.2**	83	23.8	52	32.8	53	47.5	**34.7**	83	38.2	22,800	10.3	77	19.3	**10.7**	**35.6**
24	ROU	6.9	5.5	13	7.1	5	7.7	10	9.5	**9.9**	54.8	29.1	3.28	80.1	288	79.0	123	89	**93.9**	88	47.6	38	8.6	15	0.0	**18.7**	83	40.3	21,400	8.0	73	16.5	**9.4**	**31.1**
25	ITA	38.5	31.2	18	25.0	7	23.1	12	19.0	**33.4**	74.9	64.3	9.00	11.9	450	57.4	61	18.6	**16.1**	81	14.3	81	82.8	39	30.0	**42.3**	82	34.3	28,000	18.6	106	38.9	**21.9**	**23.6**
26	GRE	14.4	11.6	19	28.6	7	23.1	18	47.6	**37.7**	57.2	33.4	6.50	41.7	252	83.8	45	0	**20.3**	79	4.8	54	36.2	42	33.8	**24.9**	95	88.0	18.600	3.5	73	16.5	**29.4**	**23.0**
27	BGR	1.3	0.9	11	0.0	4	0.0	8	0.0	**0.0**	55.3	30.0	5.44	54.4	180	93.4	79	39	**56.3**	78	0.0	33	0.0	15	0.0	**0.0**	84	44.6	16,400	0.0	49	0.0	**0.0**	**0.x0**