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Status Quo Country Report
Germany

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Content

1. Introduction

According to the Green paper – Unlocking the potential of cultural and creative industries (European Comission, 2010): “Cultural industries are those industries producing and distributing goods or services which at the time they are developed are considered to have a specific attribute, use or purpose which embodies or conveys cultural expressions, irrespective of the commercial value they may have. Besides the traditional arts sectors (performing arts, visual arts, cultural heritage – including the public sector), they include film, DVD and video, television and radio, video games, new media, music, books and press. This concept is defined in relation to cultural expressions in the context of the 2005 UNESCO Convention on the protection and promotion of the diversity of cultural expressions. Creative industries are those industries which use culture as an input and have a cultural dimension, although their outputs are mainly functional. They include architecture and design, which integrate creative elements into wider processes, as well as subsectors such as graphic design, fashion design or advertising.“

„With revenues of €535.9b, the creative and cultural industries (CCIs) contribute to 4.2% of Europe’s GDP. The sector is its third-largest employer, after construction and food and beverage service activities, such as bars and restaurants. More than 7m Europeans are directly or indirectly employed in creative and cultural activities — 3.3% of the EU’s active population. Performing arts (1,234,500), visual arts (1,231,500) and music (1,168,000) employ more than 1m people each, followed by advertising (818,000), books (646,000) and film (641,000).” (EY, 2014)

Ceramic and porcelain sector is part of creative and cultural industries, especially in its designing and small-scale production. In some regions, this sector is part of regional cultural heritage. Thus, we are providing desk research information about both ceramic and design sector in this analysis. Some CerDee project partners (museums) are naturally part of cultural industry.

According to Federal Ministry for Economic Affairs and Energy (BMWi) (2018) contributed CCIs in 2017, CCI’s contribute to 3,1 % of Germany’s GDP. In the same year, approximately 7,7% of all companies operated in CCI’s. In Bavaria, which is the seat of the CerDee Lead Partner creative and culture industries gave work to 4,3 % of workforce and it contributed to GDP with 3,6 % in 2018 according to Bayerisches Staatsministerium für Wirtschaft, Landesentwicklung und Energie (2020).

In the field of ceramic sector, Germany is known, for example, for art pottery, which is typical of the western part of this country. In Bavaria and Saxony, porcelain production has been an important part of economy since the end of 19th century. But this sector is declining from year to year.

Chapter 2 describes the methodology; chapter 3 provides an analysis of the sector based on the secondary data and outputs of our own stakeholder desk research analysis. Chapter 4 uses the primary data from the survey and informs about the results. Chapter 5 summarizes the highlights and defines strengths and weaknesses of the sector in Germany.

2. Methodology

There were few steps to make project CerDee successful. Firstly, it was necessary to analyze the current situation of the ceramic sector in Germany, and international situation of the sector as well, to make exact suggestions how to boost entrepreneurial and creative skills to optimize the economic performance, competitiveness and market position of the creative players. Secondly, use existing data such as official statistics, marketing studies, research reports, strategic documents or scientific publications about market and stakeholders in the region or country.

The situational analysis is worked out using the Eurostat statistical data on a country level as the first step. The data shows the sector of "Manufacture of other porcelain and ceramic products" (NACE C234), which consists of manufacturing ceramic for household and ornamental articles (NACE C2341), manufacturing ceramic sanitary fixtures (NACE C2342), manufacturing ceramic insulators and insulating fittings (NACE C2343), manufacturing other technical ceramic products (NACE C2344), and manufacturing other technical ceramic products (NACE C2349). Following part shows the status and development of Design sector in CerDee countries (NACE M741 - Specialized design activities). However, it is necessary to mention that not only the designers for ceramics and porcelain industry are included in following statistics. Therefore, the results have to be considered as an overview of the whole sector of specialized design activities.

This report describes the situation of overall entrepreneurial capacities in Germany in comparison to other CerDee countries using the following indicators:

- Number of enterprises
- Production value
- Persons employed
- Employees
- Persons employed per enterprise

The second step was to collect primary data from stakeholders of ceramic sector about their expectations and needs. Enterprises representing private sector and students as a part of educational sector are important stakeholders of ceramic industry, but the research also involved public sector, cultural institutions and professional associations. A unique questionnaire was made for each of these groups and the respondents, except the ones from educational sector, were interviewed face-to-face, by telephone, or online by answering the questionnaire on the internet. Students were interviewed mainly online. To research deeply the educational system in ceramic sector, the focus group or qualitative semi-structured interviews with managers, teachers or lecturers could be organized, if needed.

The survey results are used for the analysis of the situation in Germany. The primary data from interviews of stakeholders in ceramics sector were collected and analyzed. The surveys of enterprises and students as potential entrepreneurs are used for the descriptions of the entrepreneurial capacities. Especially, the perceived situation of ceramic sector, trends, level of cooperation, position and stability, educational needs, or marketing activities are analyzed in this report.

This report shows the answers on several questions describing the entrepreneurial capacities situation in Germany based on the opinions of enterprises and students as potential future entrepreneurs:

Questions for enterprises were focused on:

- a situation of ceramic sector within the whole creative sector in your country
- general trend in terms of the ceramic sector/market size
- the cooperation between private and public sector and other institutions
- a membership in an association or organization
- the history of their business
- position and stability of their business
- a cooperation with educational institutions
- employee (self) training
- further education and training
- a need of an international portal about history of ceramics
- marketing activities of the overall craft development in the city/region/country.
- financial situation of their business
- subsidies use

Questions for students were focused on:

- their study direction
- what are they intending to do after you finish school/university
- lack in knowledge/skills you might be facing during your work life
- knowledge/skills they gained at school/university
- What would help them with starting their own business / finding an appropriate job

3. Ceramic and design – secondary data overview

The situational analysis is worked out using the Eurostat statistical data on a country level. First, the Manufacture of porcelain and ceramic products is described. Second, design sector in Germany is introduced. However, it is necessary to mention that not only the designers for ceramics and porcelain industry are included in following statistics.

3.1. Manufacture of porcelain and ceramic products

Table 1 Number of enterprises

GEO/TIME	2010	2011	2012	2013	2014	2015	2016	2017	2018
Austria	153	146	148	156	153	142	137	144	132
Czechia	1 482	1 449	1 392	1 295	1 282	1 257	1 231	1 178	1 180
Germany	780	771	763	760	958	883	723	823	818
European Union	:	13 745	13 400	13 237	13 677	13 142	13 300	13 147	13 764
Italy	2 812	2 696	2 528	2 416	2 284	2 242	2 226	2 198	:
Poland	531	504	476	499	490	513	522	552	697
Slovenia	47	51	50	65	56	58	53	51	53

Source: Eurostat

Table 2 Production value (million EUR)

GEO/TIME	2010	2011	2012	2013	2014	2015	2016	2017	2018
Austria	199.1	195.2	187.1	126.0	210.0	184.6	173.2	185.4	168.5
Czechia	182.9	196.7	201.2	197.6	188.7	198.2	203.4	218.3	227.8
Germany	2 276.7	2 383.5	2 324.0	2 325.4	2 588.9	2 509.5	2 481.6	2 509.2	2 599.3
European Union	:	8 196	8 000	7 694	9 030	8 490	8 609	8 476	8 866
Italy	1 135.5	1 243.1	1 053.4	987.4	1 066.7	901.3	1 029.1	998.9	1 014.8
Poland	612.1	635.8	614.6	626.1	747.9	823.7	904.7	959.7	1 014.7
Slovenia	6.5	7.8	7.9	4.0	1.9	2.0	2.4	3.8	4.4

Source: Eurostat

Table 3 Persons employed

GEO/TIME	2010	2011	2012	2013	2014	2015	2016	2017	2018
Austria	1 480	1 490	1 493	1 215	1 556	1 579	1 496	1 503	1 378
Czechia	5 855	5 660	5 740	5 656	5 630	5 719	5 733	5 647	5 560
Germany	20 874	21 264	21 344	21 333	22 208	21 386	20 803	21 696	21 955
European Union	:	109 144	107 345	105 000	106 763	106 050	105 352	106 785	:
Italy	14 699	14 219	13 471	12 836	11 711	11 166	11 091	10 629	10 671
Poland	12 394	11 669	11 565	11 639	11 762	12 154	12 158	13 285	14 442
Slovenia	296	371	372	175	98	109	92	154	161

Source: Eurostat

Table 4 Employees

GEO/TIME	2010	2011	2012	2013	2014	2015	2016	2017	2018
Austria	1 338	1 355	1 350	1 064	1 407	1 441	1 364	1 364	:
Czechia	4 891	4 705	4 769	4 782	4 737	4 845	4 865	4 771	:
Germany	20 165	20 670	20 600	20 647	21 263	20 536	20 126	20 922	:
European Union	:	98 058	96 506	94 800	95 101	95 155	94 011	95 296	:
Italy	11 087	10 970	10 396	9 874	8 915	8 415	8 368	7 959	:
Poland	11 784	11 169	11 110	11 155	11 313	11 661	11 690	12 786	:
Slovenia	267	339	342	124	53	64	51	115	:

Source: Eurostat

Table 5 Persons employed per enterprise

GEO/TIME	2010	2011	2012	2013	2014	2015	2016	2017	2018
Austria	9.7	10.2	10.1	7.8	10.2	11.1	10.9	10.4	:
Czechia	4.0	3.9	4.1	4.4	4.4	4.5	4.7	4.8	:
Germany	26.8	27.6	28.0	28.1	23.2	24.2	28.8	26.4	:
European Union	:	7.9	:	8.0	7.8	8.1	:	8.1	:
Italy	5.2	5.3	5.3	5.3	5.1	5.0	5.0	4.8	:
Poland	23.3	23.2	24.3	23.3	24.0	23.7	23.3	24.1	:
Slovenia	6.3	7.3	7.4	2.7	1.8	1.9	1.7	3.0	:

Source: Eurostat

Germany has one of the highest indicated values in comparison with other CerDee countries. The number of enterprises in Germany is lower than in Czechia but higher than in Poland. Table 1 show that the number of enterprises increased significantly between 2013 and 2014, where it reached the peak, from 760 enterprises to 958 enterprises, but dropped again significantly in next two years to 723 in 2016. The production value raised from 2,276.7 mil. EUR (2010) up to 2,599.3 mil. EUR (2018) in Germany. In comparison with other CerDee countries, the production value is the highest in Germany, followed by Italy and Poland. The average number of persons employed per 1 enterprise is 26.4 in 2017. The development shows constant development of this indicator between 2010 and 2017. The average number of persons employed per 1 enterprise in Germany (26.4) is comparable with Poland (24.1) in 2017. It shows that bigger enterprises operate in manufacturing ceramics and porcelain in these countries in comparison with other Cerdee countries. The average number of persons employed per 1 enterprise is the lowest in Slovenia (3.0).

3.2. Specialized design activities

Table 6 Number of enterprises

GEO/TIME	2010	2011	2012	2013	2014	2015	2016	2017	2018
European Union	:	143 954	157 342	164 307	176 777	179 757	192 446	207 719	:
Czechia	2 118	2 160	2 256	2 261	2 353	2 399	2 530	2 727	:
Germany	16 732	18 398	20 464	21 530	23 083	26 170	26 307	30 079	:
Italy	27 612	27 481	28 408	27 450	29 065	29 201	30 828	32 277	:
Austria	1 398	1 484	1 507	1 540	1 542	1 558	1 594	1 631	:
Poland	3 641	5 450	6 184	6 899	7 768	8 635	10 005	11 204	:
Slovenia	733	815	869	1 001	1 100	1 249	1 374	1 502	:

Source: Eurostat

Table 7 Production value (million EUR)

GEO/TIME	2010	2011	2012	2013	2014	2015	2016	2017	2018
European Union	:	17 739	19 164	19 816	21 380	23 863	22 959	24 368	:
Czechia	81.0	87.5	86.8	81.0	76.4	91.0	104.9	126.7	:
Germany	1 930.1	2 209.0	2 522.4	2 838.9	2 825.6	3 028.6	3 277.3	3 703.8	:
Italy	3 703.2	3 838.4	3 696.7	3 894.8	4 271.5	4 363.4	3 913.2	3 880.7	:
Austria	109.2	124.4	130.8	133.8	133.9	:	:	:	:
Poland	148.2	279.5	281.8	425.9	390.5	416.5	431.4	441.2	:
Slovenia	29.3	31.6	33.2	34.3	38.9	47.3	53.8	61.3	:

Source: Eurostat

Table 8 Persons employed

GEO/TIME	2010	2011	2012	2013	2014	2015	2016	2017	2018
European Union	:	213 551	234 291	239 533	261 727	269 542	293 800	310 798	332 846
Czechia	:	2 065	2 194	2 191	2 264	2 397	2 537	2 783	3 011
Germany	31 261	33 340	37 151	40 226	43 505	48 842	51 402	58 222	60 712
Italy	44 857	43 682	44 723	44 790	46 526	47 216	49 292	50 273	51 687
Austria	2 183	2 318	2 393	2 460	2 511	:	:	:	2 945
Poland	5 206	8 755	9 450	10 145	11 756	13 990	15 344	17 616	20 410
Slovenia	889	973	1 064	1 182	1 286	1 462	1 590	1 752	1 928

Source: Eurostat

Table 9 Employees

GEO/TIME	2010	2011	2012	2013	2014	2015	2016	2017	2018
European Union	:	103 000	115 190	117 791	131 775	137 727	155 980	162 331	:
Czechia	678	633	676	658	677	736	781	894	:
Germany	13 103	13 336	15 042	16 959	18 566	20 563	22 610	25 738	:
Italy	14 026	12 573	14 734	15 773	16 172	16 806	17 471	17 363	:
Austria	762	815	843	859	921	:	:	:	:
Poland	1 447	2 836	3 075	2 993	3 685	4 764	4 756	5 797	:
Slovenia	325	334	379	361	369	409	430	466	:

Source: Eurostat

Table 11 Persons employed per enterprise

GEO/TIME	2010	2011	2012	2013	2014	2015	2016	2017	2018
European Union	:	1.5	1.5	1.5	1.5	1.5	1.5	1.5	:
Czechia	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	:
Germany	1.9	1.8	1.8	1.9	1.9	1.9	2.0	1.9	:
Italy	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	:
Austria	1.6	1.6	1.6	1.6	1.6	:	:	:	:
Poland	1.4	1.6	1.5	1.5	1.5	1.6	1.5	1.6	:
Slovenia	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	:

Source: Eurostat

The number of enterprises in design sector has been raising rapidly from 16,732 (2010) up to 30,079 (2017). In comparison with other CerDee Countries, the growth of number of enterprises is quite significant in the last decade, but there is more significant in Poland and Slovenia. The production value in design sector reached the peak in 2017. In 2017, the production value of German market in design sector was 3,703.8 mil. EUR, which is comparable with Italy (3,880.7 mil. EUR). These two countries generate the highest production value from CerDee countries. The number of persons employed in design sector has been raising rapidly from 31,261 (2010) up to 60,712 (2018), which is the highest number of persons employed in design sector in CerDee countries. The second highest is registered in Italy (51,687). The number of employees in design sector has been raising rapidly from 13,103 (2010) up to 25,738 (2017), which is the highest number of employees in design sector in CerDee countries. The second highest is registered in Italy (17,363). The average number of persons employed per 1 enterprise is 1.9 in 2017, which is the highest in CerDee countries. The average number of persons employed per 1 enterprise is the lowest in Czechia (1.0).

3.3. Basic information about stakeholders in ceramic sector in Germany – Assesment of the CerDee partners

Germany is the second most populous country in Europe (after Russia) with a population of 83 million inhabitants. The area of Germany is 357 022 km^2. Germany comprises of sixteen federal states (Bundesländer). Each state has its own state constitution, and is largely autonomous in regard to its internal organisation, e.g. also in the field of culture or education. As of 2017 Germany is divided into 401 districts (Kreise) at a municipal level.

Figure 1 Germany – Federal states

Source: https://www.touropia.com/regions-of-germany-map/, 2020

Within INTERREG Central Europe area following federal states are involved: Baden-Wuerttemberg, Bavaria, Berlin, Brandenburg, Mecklenburg-Western Pomerania, Saxony, Saxony-Anhalt and Thuringia. This is also the area of our broad focus.

Figure 2 Example of Rosenthal porcelain pieces

Source: https://www.rosenthal.de/en/info/company/our-service/old-series-dealers-and-restorers/

Within our desk research, we have developed a stakeholder database to support our project. This database is divided into several stakeholder groups. Further, we provide short insights in to the ceramic sector in Germany, based on our experience, knowledge and research.

1. **Private sector**

In almost all cases the stakeholders are working alone (in some cases couples run a workshop together). Besides there are very few very small companies with less than ten employees. There are just a handful bigger companies, such as Rosenthal GmbH, bhs tabletop AG with some hundred employees, and a few small size companies with 25 to 49 employees. The product range includes everything from simple utility ceramics (earthenware crockery) to high-class porcelain objects (tableware, art objects) including all possible fields of usage such as tiled stoves, roof tiles, floor tiles, bathroom furniture such as sinks, decorative objects for all purpose, jewellery, and tableware of all kind.

Most of the one-(wo)men-workshops offer different types of workshops to the public to generate an additional income. The offers range from pottery courses, to teaching of decoration techniques, to special firing methods. These offers are mostly meant for everybody interested in the topic.

Within our desk research, we have indicated: 337 private institutions.

2. **Market/trade information and professional associations**

As soon as somebody had officially registered as commercial enterprise with the tax office a membership of the Chamber of Commerce becomes obligatory in Germany. If a craft profession is the basis of the enterprise the chambers of crafts/trades is the responsible institution. The membership is subjected to a fee.

There are 53 chambers of crafts/trades in Germany representing the whole craftsmanship/trade in Germany. They are organised in different regional chambers and are self-governing institutions of the German crafts/trades. They represent the interests of the sector. They develop strategies to promote the sector and monitor and report on the situation of their members. In case of any problems occurring between their members and customers or other authorities the Chambers assumes the role of a mediator. Besides they offer further trainings and give advice related to any business issues, inclusive legal advices. They provide special support for new businesses and entrepreneurs. In cooperation with the guilds they organise job/craft/trade specific educational trainings.

There are some other associations such as DKG (German Ceramic Society), Bundesverband der keramischen Industrie (BVKI, Federal Association of the Ceramic Industry), Verband der keramischen Industrie (VKI, Association of the Ceramic Industry). The first one (DKG) was founded in 1919 as technical-scientific association of the whole ceramic sector in Germany. While at the beginning all ceramic areas were represented in DKG, it has developed over the years to a society representing in first place technical ceramics and the research field of it. Members of the VKI are in first place bigger companies, only very few small to medium sized companies are members (f. e. Wagner & Apel). VKI supports its members in first place on a political level (Environmental- and Energy policy, safety issues, legal issues), and together with DKG is working on scientific research and development.

Crafts ceramists can become a member of the ceramics **guilds**. Each Federal State of Germany has its own "potters" guild. The guilds offer to their member's information about new developments related to any new legal principles and regulations, such as minimum wage, declaration of conformity, data protection law, etc., they promote the members on their websites, offer them the free participation at different pottery markets and organise the "Day of the open pottery" which is held once a year. Besides they offer information about the education as trained craftsperson in ceramics and monitor content and quality of the education. In some regions they examinate the journeymen and master craftsmen and support them then to set up their own business.

Within our desk research, we have indicated: 10 professional associations.

3. Education and training information

There are only two stakeholders active in the educational sector in the German project areas – Keramikschule Landshut and Staatliches Berufliches Schulzentrum für Produktdesign und Prüftechnik Selb. The latter only provides very few courses dedicated to ceramics. The main focus today is design in general. Whether ceramics is a topic depends on the teachers and their own focus and interest. The Keramikschule Landshut educates ceramics as a craftsmanship. They train ceramic journeymen and offer to achieve the ceramic masters' craftsman's certificate/diploma.

Some universities in Germany (Burg Giebichenstein, KHB), offer courses in ceramics. In most cases the focus is design, in some it is art. Ceramics as a material is always one choice among others. There is no university course/education dedicate solemn to ceramics or ceramics & glass, as it is in other countries.

Within our desk research, we have indicated: 12 educational institutions which have connection to ceramics or ceramic design.

4. Cultural institutions

There are two kinds of cultural institutions dedicated to ceramics in the German partner regions. In most cases these institutions are museums. There are five museum dedicated to the (regional) history of ceramics (International Museum of Ceramics in Weiden, Museum of Porcelain Factory Wagner & Apel in Lippelsdorf, Porzellanwelten Leuchtenburg in Seitenroda, Porcelain Museum Oscar Schlegelmilch in Langewiesen, Porzellanikon in Selb and Hohenberg a. d. Eger). Besides there are especially in Thuringia a lot of museums whit an own porcelain collection. Besides the exhibitions itself these museums offer different educational programmes for several target groups (f.e. artist talks, thematic talks, pottery in historic styles, porcelain manufactory).

Besides two touristic routes (Porzellanstraße International, Thüringer Porzellanstraße) summarise the cultural history of the porcelain production in the two German partner regions. Members of the routes are in first place the ceramic manufacturers, which have different touristic offers to promote the ceramic regions.

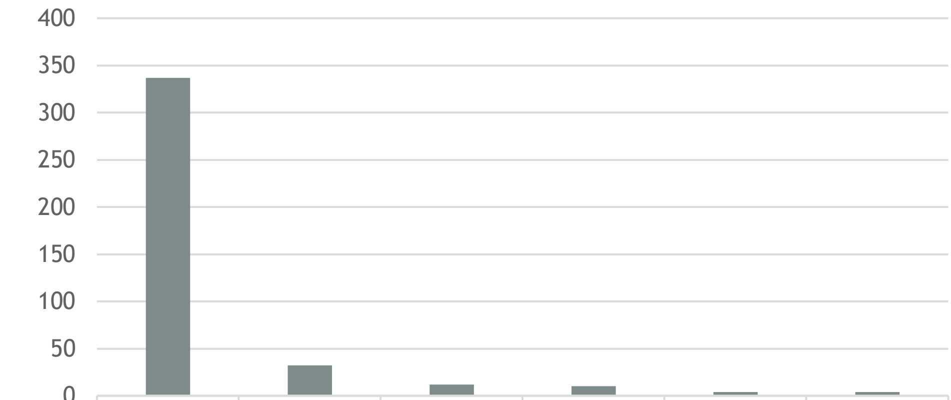
Within our desk research, we have indicated: 32 cultural institutions.

5. Public and public-private sector

Meanwhile quite a few business development agencies and start-up consultings has been founded in Germany. The business development agencies are in most cases directly linked to public authorities such as the district offices. Nearly every county has set up such a development agency. They advise on entrepreneurship, financing, broker real estate, arrange contact with the IHK/HWK, tax consultants, lawyers. The different start-up consultans, such as einstein1, WSE, offer expertise, support with financial issues and have a wide network of professionals and specials in different fields, which support young entrepreneurs as 2business angels”. They organise different workshops to train business skills. Some of them, such as einstein1 offer a co-working space.

Within our desk research, we have indicated: 4 public sector subjects, and 4 private-public acting.

Figure 3 Germany – CerDee Stakeholder Database (03/2020)



	Private sector	Cultural institutions	Educational sector	Professional associations	Public-private acting subjects	Public sector
Number	337	32	12	10	4	4

Source: Own database, 2020

4. Survey results – primary data overview

The survey results of enterprises in Germany show the **attitudes and situation of current businesses** as well as **students as potential entrepreneurs** for the future in ceramic sector in the market. However, it is necessary to mention that most of the responses were obtain **before the COVID-19 pandemics**. Therefore, the entrepreneurial capacities based on the entrepreneurs' responses are related to the situation before the pandemics and **we expect dramatical changes** in the sector after this crisis.

4.1. Businesses as existing entrepreneurial capacities

To do a deeper analysis of entrepreneurial potential and to find out their opinions on current situation, financial conditions etc. in Germany, the database of businesses in ceramic sector has been made. The database is open and will be updated continuously. It contains information about **84 businesses** in Germany (related to 3/2020).

The sample of Germany contains **41 respondents** (n). Not all the respondents answered every question; therefore there are fewer responses in several cases of particular question ($n \leq 30$).

The legal forms of about 90 % are self-employed, 10 % of respondents answered 'other' (Fig. 1). About 72 % of enterprises involved in the survey are in the ceramic sector more than 10 years (46 % more than 20 years, 26 % between 11 – 20 years), 25 % exist from 6 to 10 years. Only 3 % of respondents are starting their businesses (up to 2 years). (Fig. 2)

The respondents see the **overall situation in ceramic sector more negative than positive** and only 17 % expect a **growth of the sector in next 5 years** (Fig. 3). Just 17 % of the respondents consider the **cooperation in this sector** as a sufficient, 66 % as **insufficient (Fig. 4)**, even though almost a half of the respondents (55 %) are members of some association or organization in ceramic sector in Germany and 25 % would like to be involved in this kind of cooperation (Fig. 5). 54 % **cooperates with some educational institution** (Fig. 6).

There is a **need for further education and training** visible among the respondents. Big portion of them (84 %) work actively on employee or self-training (Fig. 7). Interesting and helpful topics for further education and training in craft and design skills are **modern techniques**, **foreign inspiration, decorating techniques, IT skills (working with professional software)** or **design techniques** (Fig. 8). From the viewpoint of management, marketing, and business skills, **online marketing** and **presentation skills** were found as the most helpful and interesting for further education and training, followed by social media marketing, courses with some ceramic personality or entrepreneur, and law and intellectual property, time management and sales skills (Fig. 9). About 50 % of the respondents participate in the marketing activities of the overall craft development in the city/region/country, while 32 % do not. The rest is undecided. However, 93 % of **respondents are interested in participating in a marketing campaign** to promote creative sector in the region (Fig. 10). An **international portal about history of ceramics**, including pictures and videos from different regions, would help 58 % of the respondents in their activities in ceramic sector. Only 15 % find this idea as not helpful, the rest is undecided (Fig. 11).

The **financial situation** shows that more than a half (55 %) of the respondents see their situation as in **average**, while 15 % as good or very good; 30 % as bad or very bad. However, 87 % of the respondents do not use any financial indicators to monitor the efficiency of their businesses. Just 23 % of the respondents have already used or required some kind of **subsidy** in last 10 years. (Fig. 12)

4.2. Students as potential entrepreneurial capacities

The survey results of students in Germany should show the **attitudes and situation of students as potential entrepreneurs in ceramic sector**. However, most of the responses were obtain **before the COVIC-19 pandemics**. Therefore, the entrepreneurial capacities based on the students' responses are related to the situation before the pandemics. Due to this situation includes the survey only three respondents. For that reason, this chapter will not be reported. It is planned to repeat the research after pandemics when more respondents will participate.

Three students from Germany are from 22 to 26 years old. Their opinions are different. These women study design and see themselves as artists in the future.

4.3. Expectations and needs of stakeholders

Expectations and needs are aspects which make up important part of the research. Expectations of stakeholders give the way how the sector and industry may develop in few years horizon. The essential step to give exact recommendation is to find what the needs of the stakeholders are. These two aspects are closely explained in this part of the report.

The respondents were asked to rate the **current situation of ceramic sector** in Germany at the beginning of the questionnaire. On the scale where 1 point means worst and 10 points mean best, 30 % of the respondents rated this statement with 6 and more points, on the other hand 70 % rated between 1 and 5 points (Fig. 13). Only 17 % of the entrepreneurs think that the **sector will grow in next 5 years**; but 37 % expect the **sector will experience decrease** and the rest of the respondents think that the condition of the ceramic **sector will not change** (Fig. 13).

In next part of the questionnaire were respondents asked to rate intensity, importance of cooperation with each sector and also rate the influence of each sector on the scale between 1 and 10 points based on same principle again. Answers of each stakeholders sector are compared to the mean of stakeholders sector form all CerDee countries.

Intensity of current cooperation with **all stakeholder sectors** was rated **lower** in Germany in comparison to other CerDee countries (Fig. 14). **Importance of cooperation** with **almost all stakeholder sectors** was rated **lower**, except cooperation with German **cultural institutions**, which is seen **more important** than in the other CerDee countries (Fig. 15). **Influence level** of **all stakeholder sectors** is seen **smaller** in Germany than is the average from all countries (Fig. 16).

Big problem for ceramic sector in Germany seems to be the lack of support and promotion by social media or traditional media like newspaper and not many opportunities where the entrepreneurs can exhibit their products, such as galleries etc. Many respondents would appreciate to educate students about ceramic sector in their region to promote art and craft to young people (Fig. 17).

As just 17 % of the respondents consider the **cooperation in the ceramic sector as a sufficient** (Fig. 18) many of them would appreciate to participate in some project and the cooperation between their businesses and public sector to be closer.

For 88 % of the respondents, the most important **benefit from the cooperation** is **joint marketing**, for 66 % it is **information service** and for 59 % some kind of **subsidy**. Almost a half of the respondents (46 %) see it like an opportunity for **help with administration** and also **help with accessing new markets** (Fig. 19). **Subsidy** is one of the main goals for entrepreneurs when taking part in cooperation, but only 23 % of the respondents feel that they **have enough information** about how to get it, 25 % disagree and the rest is undecided (Fig. 20). On the statement **'I am going to apply for a subsidy in the future'**, 23 % reacted positively and 33 % negatively (Fig. 20). **External capital**, as an instrument of financing a business, was used by 23 % of the respondents in last 10 years and only 10 % plan to use it in the future (Fig. 21).

Next part of the report is focused on expectations and needs of each sector of the respondents. Description of each sector is based on their answers on the scale from 1 to 10, where 1 is lowest and 10 the highest, on questions 'Intensity of current cooperation', 'Importance of cooperation' and 'Influence level' towards other sectors. But it is necessary to keep in mind the structure of respondents' sample. The structure is following: 1 cultural institution, 1 educational institution, and 41 respondents from private and 2 respondents from public sector. The results of the research would be more accurate with bigger sample of the respondents.

4.3.1. Expectations and needs of cultural institutions

The respondents from **cultural institutions** see the **current cooperation** with other **cultural institutions** (10.00), **educational institutions** (6.00), **private sector** (7.00) and **public-private acting sector** (6.00) quite **intensive**. Intensity of cooperation with **professional institutions** and **public sector** is seen as **extensive** in their opinion (4.00 and 4.00).

The **importance of cooperation** with other **cultural institutions** (9.00) and **educational institutions** (7.00) was rated **high**. On the other hand cooperation with **private sector** (5.00) and **professional institutions** (5.00) was rated as an average and cooperation with **public sector** and **public-private acting sector** is thought to be extensive (4.00 and 4.00).

The respondents from **cultural institutions** consider **influence level** of **almost all stakeholder sectors** as **high** (> 6.50), except **public-private acting sector**, whose influence was rated low (3.00).

4.3.2. Expectations and needs of educational institutions

The respondents from **educational institutions** see the **current cooperation** with **almost all stakeholder** sectors, except **educational** sector, quite **intensive** (> 6.00). Intensity of cooperation with other **educational institutions** (2.00) is seen as **extensive** in their opinion. The data about intensity of cooperation is missing.

The **importance of cooperation** with **almost all stakeholder sectors** was rated **high** (> 7.00), but respondents from educational institutions think that **importance of cooperation** with **private sector** is none.

Data about respondents answer on rating the **influence level** of all stakeholder sectors is not available.

4.3.3. Expectations and needs of private sector

The respondents from **private sector** see the **current cooperation** with **all stakeholder sectors** as **extensive** (< 4.50).

The cooperation with **cultural institutions** (5.37) and **public sector** (4.88) was evaluated as **average important**, and cooperation with **educational institutions** (4.35), **private sector** (4.37), **professional institutions** (4.07) and **public-private acting sector** (4.32) was rated as **not important.**

The respondents from **private sector** consider **influence level** of **cultural institutions** (5.33, **private sector** (4.79, **public sector** (4.75) and **public-private acting sector** (4.73) as **an average**; only influence level of **educational institutions** and **professional institutions** is seen as **low.**

4.3.4. Expectations and needs of public sector

The respondent from **public sector** sees the **current cooperation** with **cultural institutions** (7.00), **educational institutions** (6.00), **public sector** (8.00) and **public-private acting sector** (8.00) as

extensive, intensity of cooperation with **professional institutions** (4.50) was rated as an **average**, and with **private sector** (3.00) was rated low.

In comparison, the **importance of cooperation** with **all stakeholder sectors** was rated **high** (> 7.00).

The respondent from **public sector** considers **influence level** of **cultural institutions** (7.00), **educational institutions** (7.00), **private sector** (7.00) and **professional institutions** (8.00) as **high**. The influence level of **public sector** (5.50) and **public-private acting sector** (5.50) was rated as an **average**.

4.4. Marketing activities

Marketing is one of the most important processes in company. Its aim is to get the knowledge, influencing and satisfying customer's needs and wishes and also achieving goals of the organization in an effective way. That is why all companies choose their marketing activities properly.

Nowadays, in the ceramic and porcelain sector in Germany, is mostly used marketing through the **own website** (80 %). Very common is also **advertising in traditional media**, mostly in press (63 %). Many companies use **social media** for their marketing activities such as **Facebook** (51 %), **Instagram** (34 %) or **YouTube** (20 %). There are some other ways used for marketing in companies such as **online advertising** (51 %), **point-of-sale promotions** (46 %) or a **loyalty program** (12 %). (Fig. 22)

Entrepreneurs in Germany plan to improve their **own websites** (32 %). Using of social media is important; the plan for the future marketing activities includes the greater use of **YouTube** (24 %), **Instagram** (22 %) and **Facebook** (15 %). **Online advertising** (27 %) is also planned such as **advertising in press** (20 %) and other traditional media (Fig. 23).

Own forces of the company (63 %) are mostly responsible for the marketing activities. Only 8 % of entrepreneurs in Germany use **local**, **regional** or **national support** (Fig. 24). A half of respondents **participate in the marketing activities** of the overall craft development (50 %) and a third of them do not (31 %). Almost everyone is interested in **participating in a marketing campaign** to promote creative sector (93 %). (Fig. 25)

Marketing activities on social networks are mostly a **promotion of the product** (56 %) or a **promotion of the company** (44 %). Very common is **offering exclusive promotions** (34 %) and **technical information** (17 %). (Fig. 26) Through the social media companies improve their **reputation and brand image** (49 %) and **get new customers** (44 %), they **get feedback from clients and general public** (27 %) and also **collect information about their customers** (12 %). Some of the companies have **closed sales operations through the social media** (10 %). It is surprising that in this modern world 39 % of respondents do not use the social media for marketing. (Fig. 27)

Own brick-and-mortar store (71 %) and **markets**, **fairs** (63 %) are the most common distribution channels used in Germany. Around 30 % of companies use **retail**. **Online stores** (17 %) and multi-brand online platforms are also used (Fig. 28).

In the future it is planned greater use of own brick-and-mortar stores (59 %), markets, fairs (46 %) and own online store (29 %). Other channels planned for the distribution are retail (24 %), multi-brand online platforms (12 %) and some others (22 %). (Fig. 29)

5. Strengths and weaknesses

Strengths

One of the strengths of porcelain and ceramics sector in Germany is a big portion of respondents working actively on employee or self-training (84%). The amount of improving workers in Germany is higher than in all of the CerDee counties except Poland.

There is the greatest use of advertising in press in Germany in comparison to the other CerDee countries. It is also planned to extend the advertising in newspapers by 20 %. For the marketing activities are mostly responsible **own forces of the company** which means lower costs for the entrepreneurs.

In this current modern world is good the fact that companies plan more of **online advertising** and to do **marketing activities on their own websites** in the future. Using of social media is important; the plan for the future marketing activities includes the second highest usage of **YouTube** and of **online advertising**. Greater use of **own brick-and-mortar stores** is planned for the future. This distribution channel is mostly used in Germany in comparison to the other CerDee countries.

There are **377 private institutions** in Germany, this number is the highest from all of the CerDee countries, but it is necessary to mention that Germany is the biggest from all of these states. The product range **includes everything** from simple utility ceramics (earthenware crockery) to high-class porcelain objects (tableware, art objects) including all possible **fields of usage** such as tiled stoves, roof tiles, floor tiles, bathroom furniture such as sinks, decorative objects for all purpose, jewellery, and tableware of all kind.

Many **professional associations** operate in Germany. There are 53 chambers of crafts/trades representing the whole craftsmanship/trade in this country. They **represent the interests** of the sector and **develop strategies** to promote the sector and monitor and report on the situation of their members.

Weaknesses

Big problem for ceramic sector in Germany seems to be the lack of support and promotion by social media or traditional media like newspaper and not many opportunities where the entrepreneurs can exhibit their products, such as galleries etc.

Weakness of porcelain and ceramic sector in Germany is that 87 % of the entrepreneurs do not use any financial indicators to monitor the efficiency of their businesses. This number is the highest of all CerDee countries.

Intensity of current cooperation with **all stakeholder sectors** was rated **lower** in Germany in comparison to other CerDee countries. **Importance of cooperation** with **almost all stakeholder sectors** was rated **lower**, except cooperation with German **cultural institutions**, which is seen **more important** than in the other CerDee countries. **Influence level** of **all stakeholder sectors** is seen **smaller** in Germany than is the average from all countries.

Only 54 % of respondents **cooperates** with some **educational institution.** This number is the second lowest (after Italy) in comparison to the other CerDee countries.

As crucial barriers of the sector (Question 14) were mentioned many different aspects. Respondents see the problem mostly in insufficient promotion of the sector. Another problem is that a tradition of the market should be more appreciate because of the uniqueness and also the origin. The fact that the origin of products is not appreciate enough goes hand in hand with another barrier, customers buy cheaper products from abroad. According to Slovenian entrepreneurs is another barrier that public do not know much about the production of porcelain and ceramic articles.

5.1. Summary

The situational analysis using the Eurostat statistical data shows that there is **high potential of enterprises in Germany**. The total number of enterprises in **ceramic and porcelain sector** is 30 897 (manufacturing and design) in Germany. The amount is slightly rising during years.

The number of enterprises in **ceramic manufacturing** is the highest in Germany in comparison to the other CerDee countries. The production value is the highest in this country, too.

If we should quantify the potential of the ceramic sector in **Germany**, the total number of enterprises **manufacturing ceramic and porcelain** products was 818 (in 2018). If we take also the **design sector** in account, the total number of enterprises in Germany was 30 897.

Based on the survey, we found out About 72 % of enterprises involved in the survey are in the ceramic sector more than 10 years (46 % more than 20 years, 26 % between 11 – 20 years), 25 % exist from 6 to 10 years. Only 3 % of respondents are starting their businesses (up to 2 years). This shows a long tradition in this industry.

The respondents see the **overall situation in ceramic sector more negative than positive** and only 17 % expect a **growth of the sector in next 5 years.** The **financial situation** shows that more than a half (55 %) of the respondents see their situation as in **average**, while 15 % as good or very good; 30 % as bad or very bad. However, it is necessary to mention here that most of the responses were obtain **before the COVID-19 pandemics**.

Therefore, the entrepreneurial capacities based on the entrepreneurs' responses are related to the situation before the pandemics and **we expect dramatical changes** in the sector after this crisis. The future development is hardly predictable in the moment and the forecasts will require more secondary, as well as primary data analysis in the future.

Big problem for ceramic sector in Germany seems to be the lack of support and promotion by social media or traditional media like newspaper and not many opportunities where the entrepreneurs can exhibit their products, such as galleries etc.

The **potential entrepreneurs** in ceramic sector are represented by students but we got answers only from three student from General, so it is not possible to talk about these results in general. It is also needed to get more respondents when repeating the survey after pandemics.

6. Annexes

6.1. Businesses as existing entrepreneurial capacities – graphical overview

Figure 1 Sample – Legal form of respondents

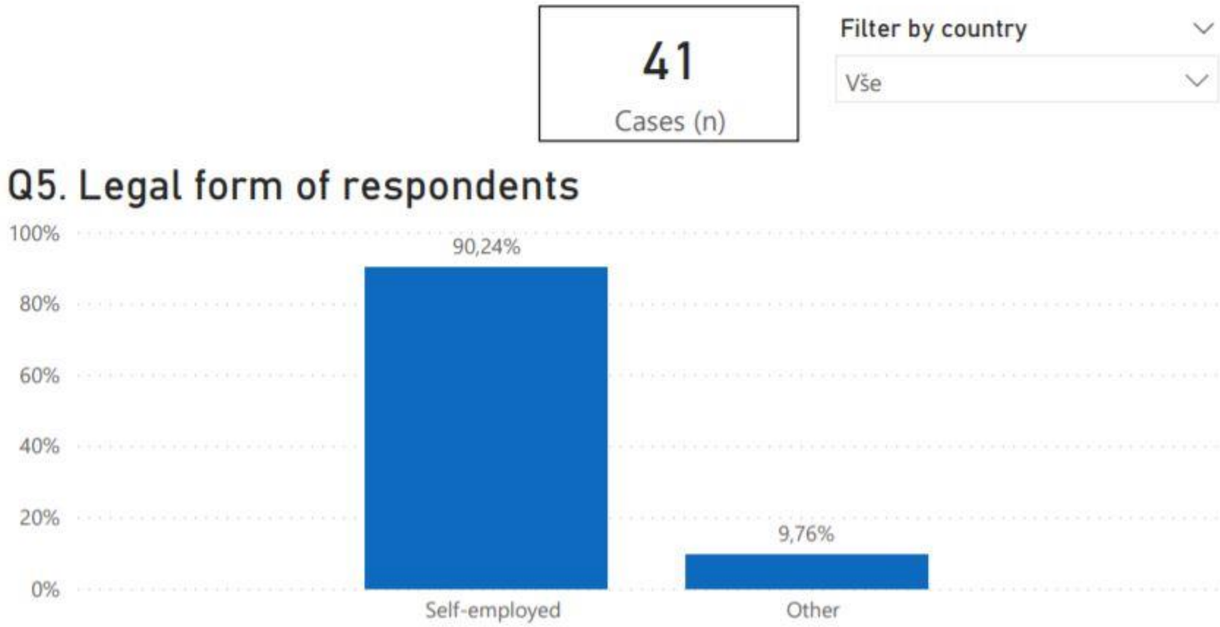


Figure 2 Sample – Length of managing business

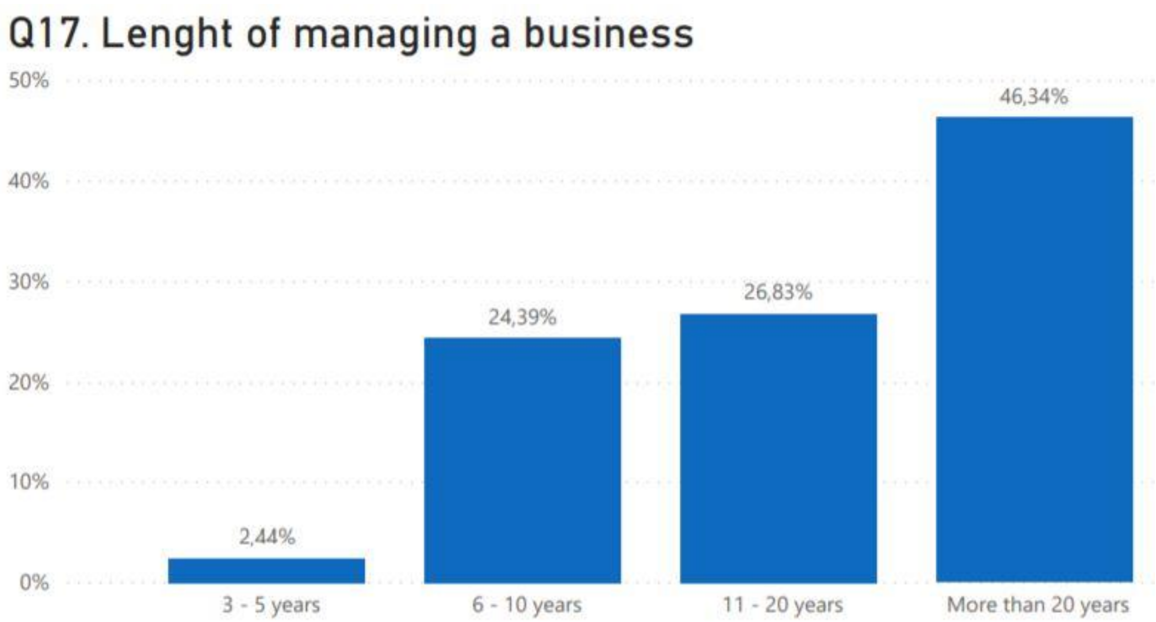


Figure 3 Situation in ceramic sector

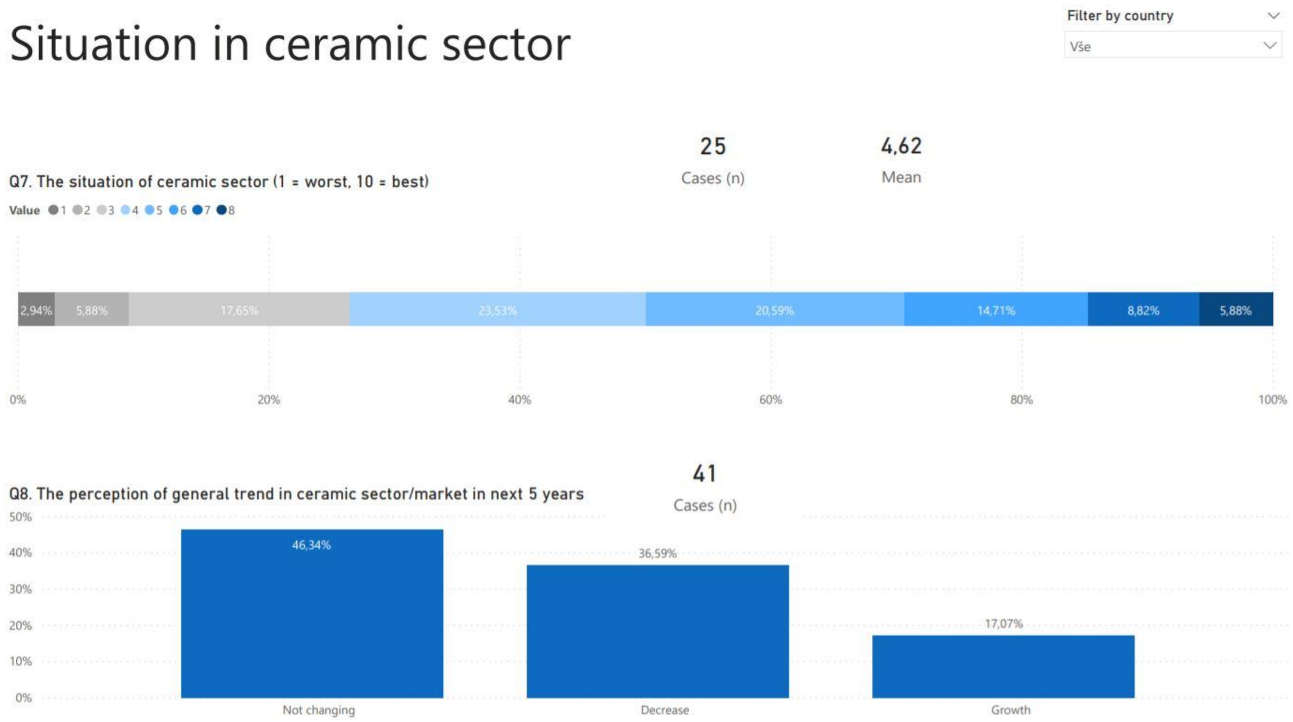


Figure 4 Level of cooperation

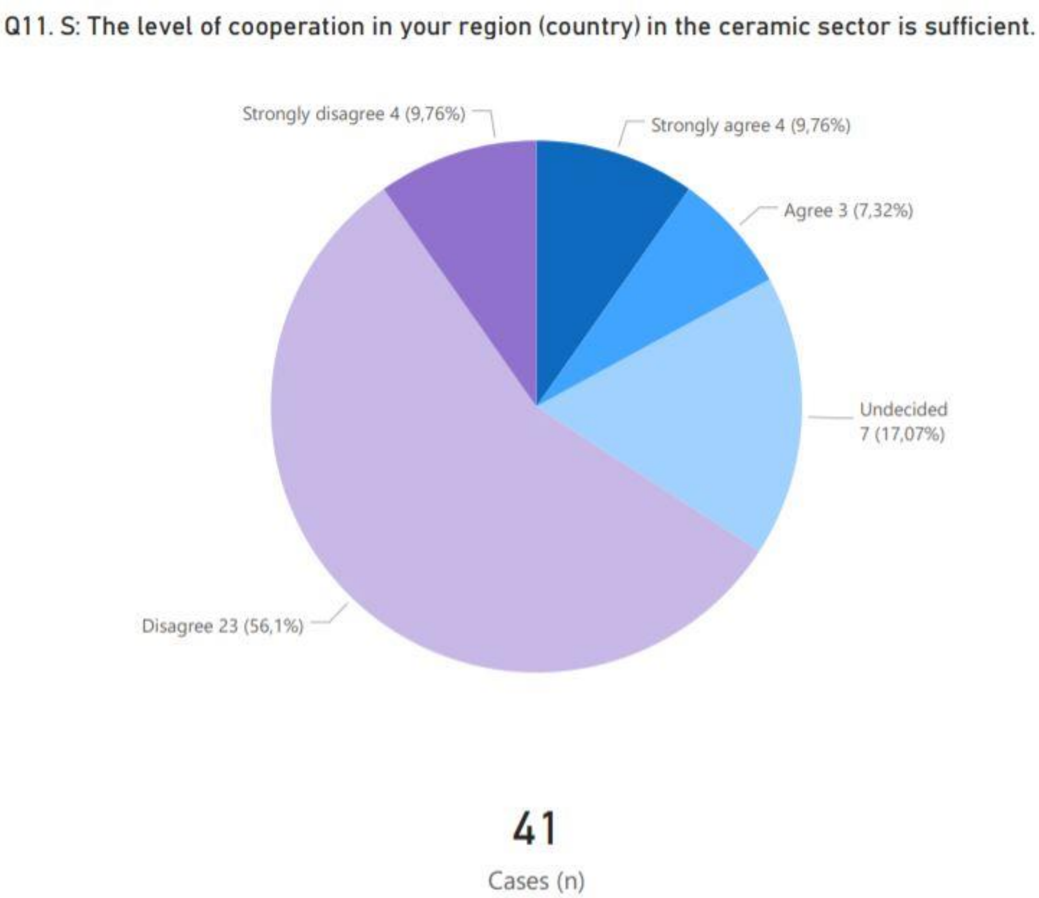


Figure 5 Membership in an association

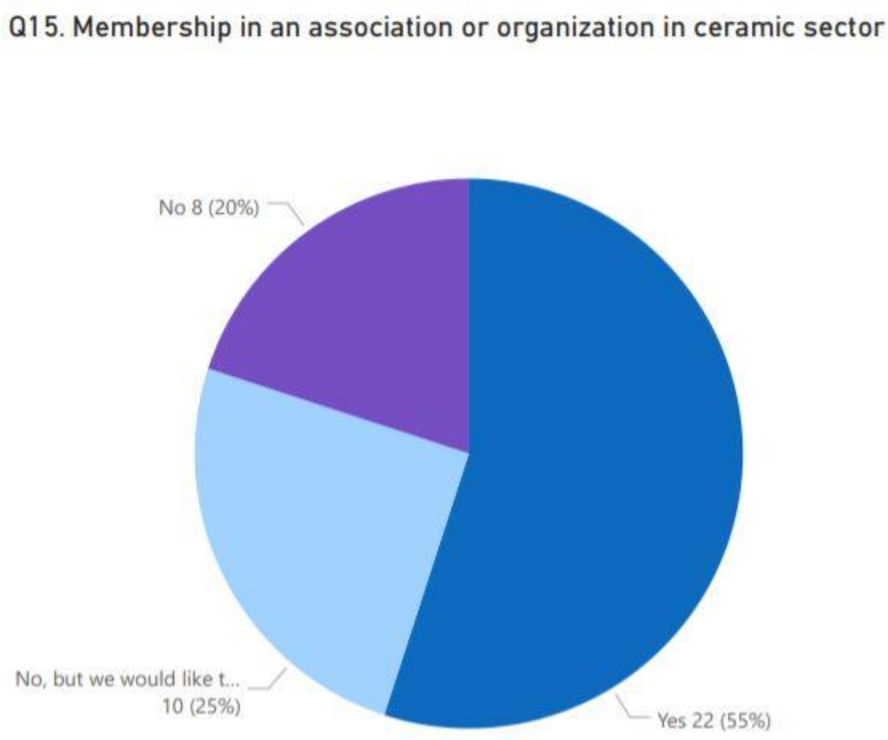


Figure 6 Membership in an association

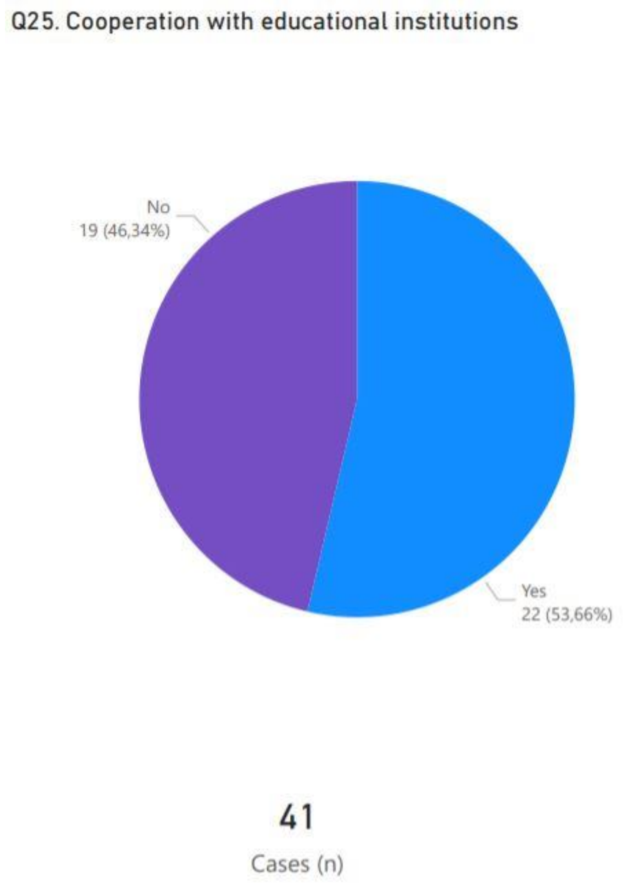


Figure 7 Employee and self-training

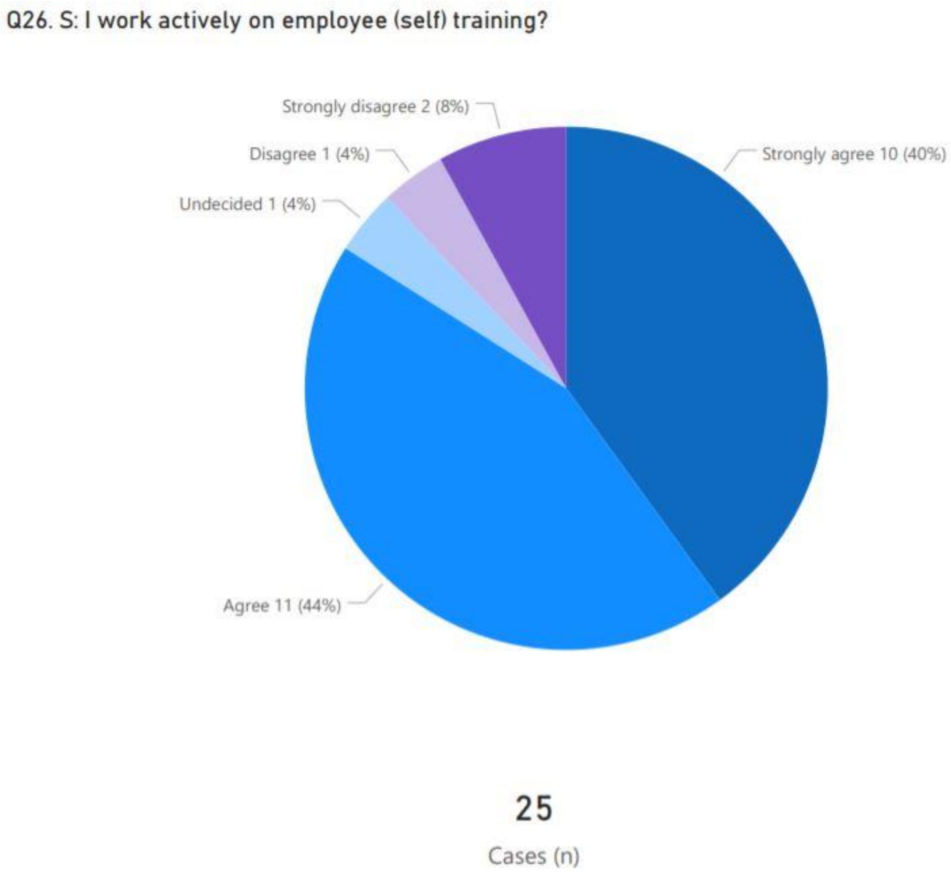


Figure 8 Further education and training topics (craft and design skills)

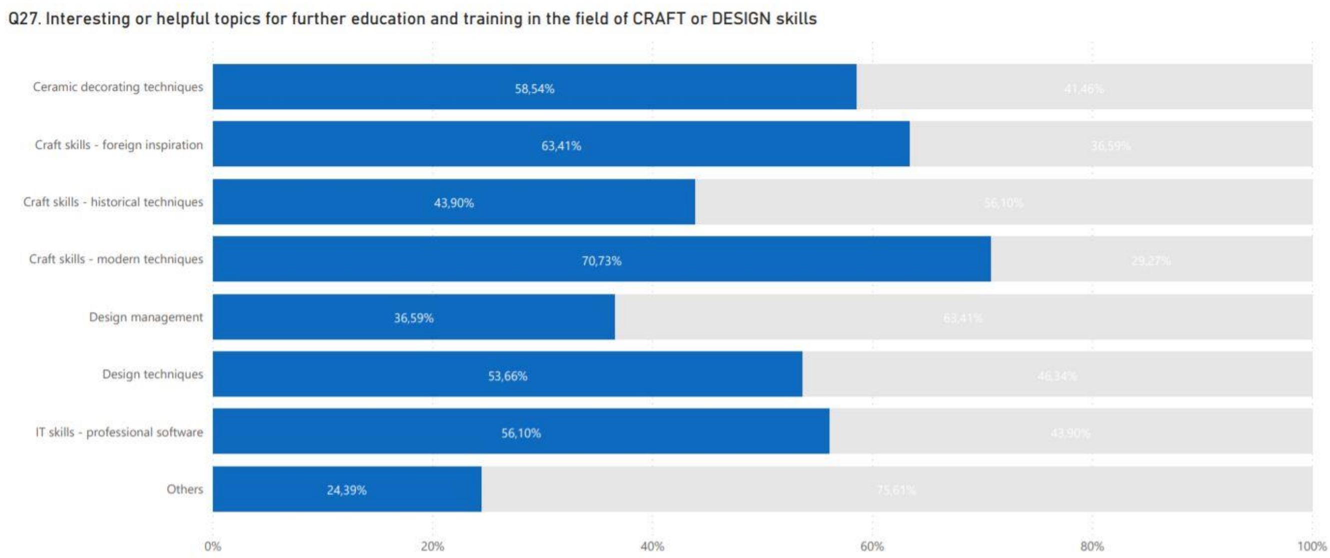


Figure 9 Further education and training topics (management, marketing, and business skills)

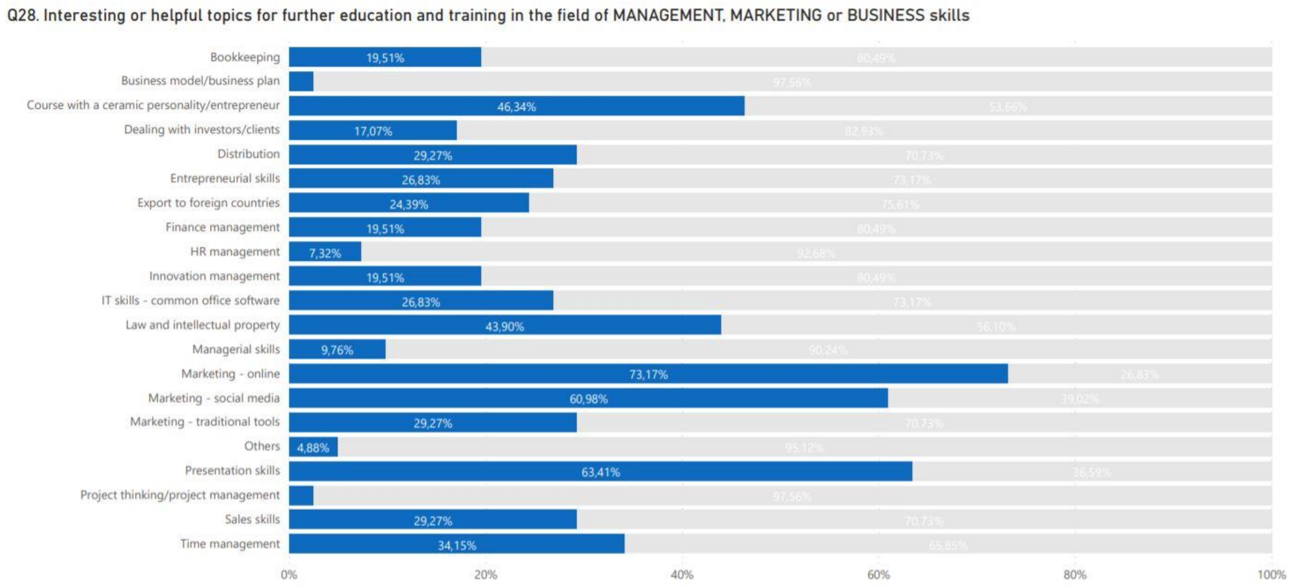
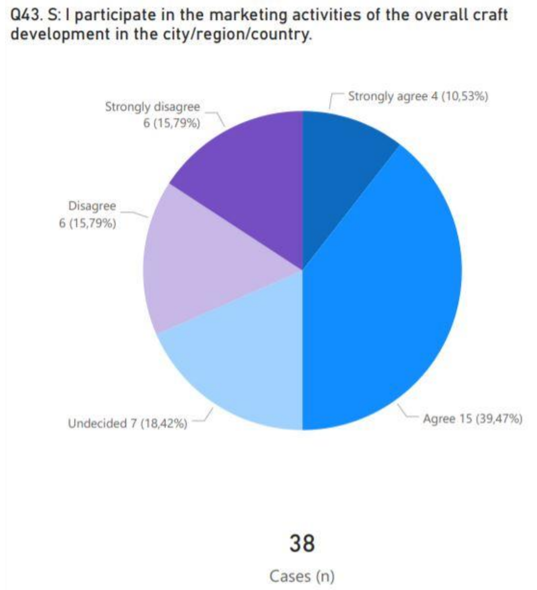


Figure 10 Participating in marketing activities in the city/region/country



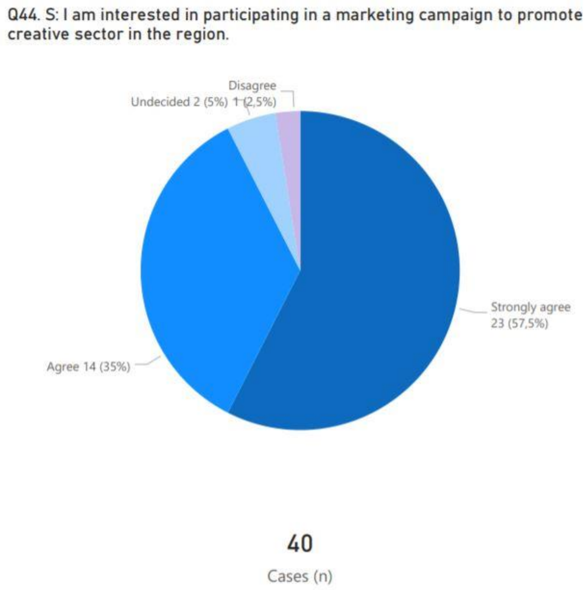


Figure 11 A need of international portal about ceramics

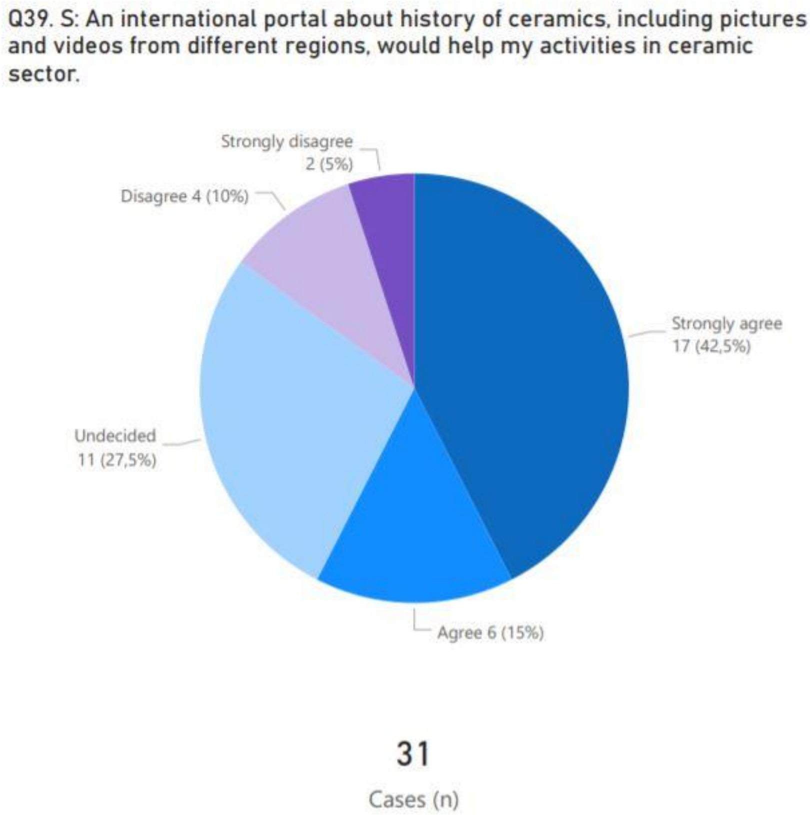
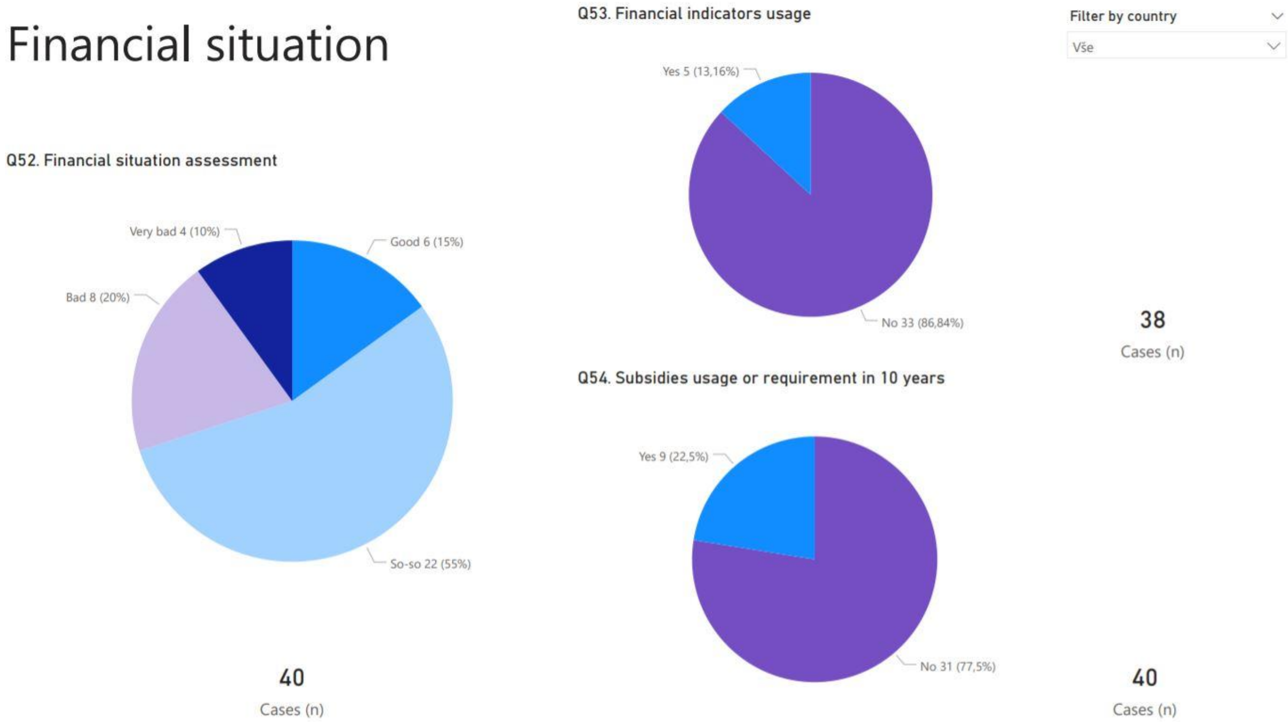


Figure 12 Financial situation



6.2. Expectations and needs of stakeholders

Figure 13 Situation in ceramic sector

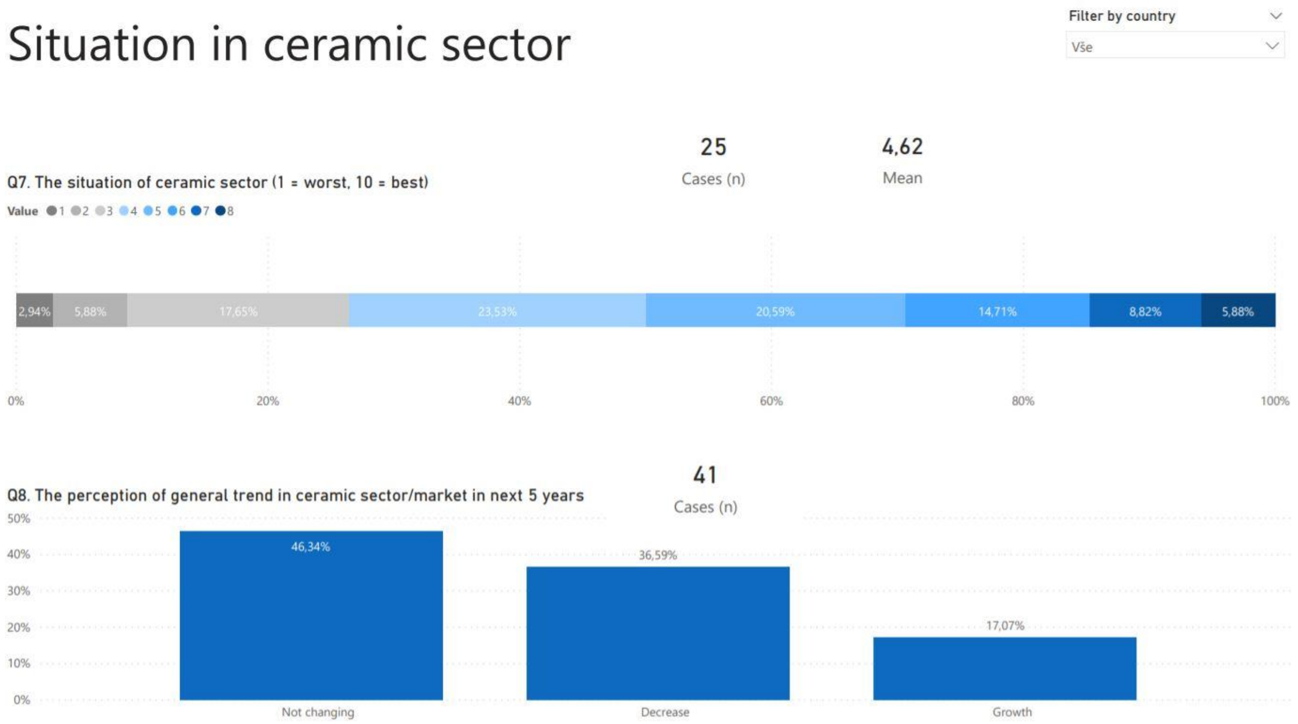


Figure 14 Intensity of current cooperation

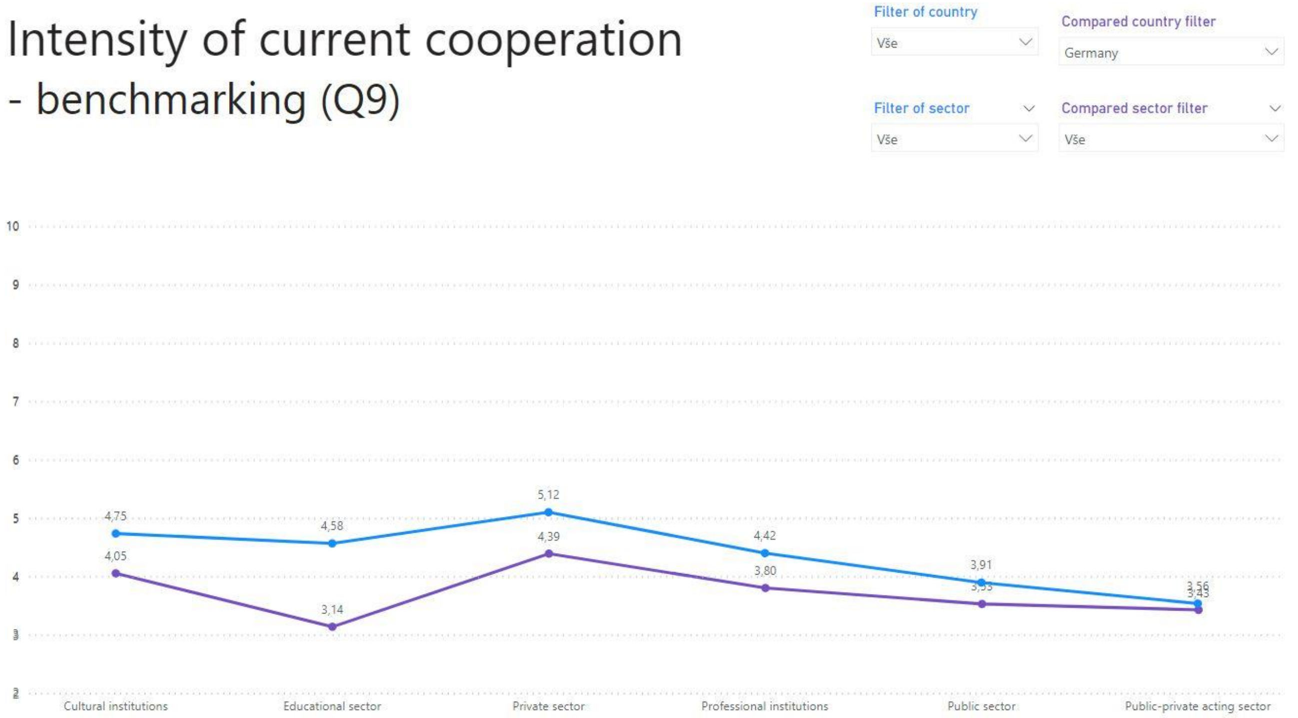


Figure 15 Importance of cooperation

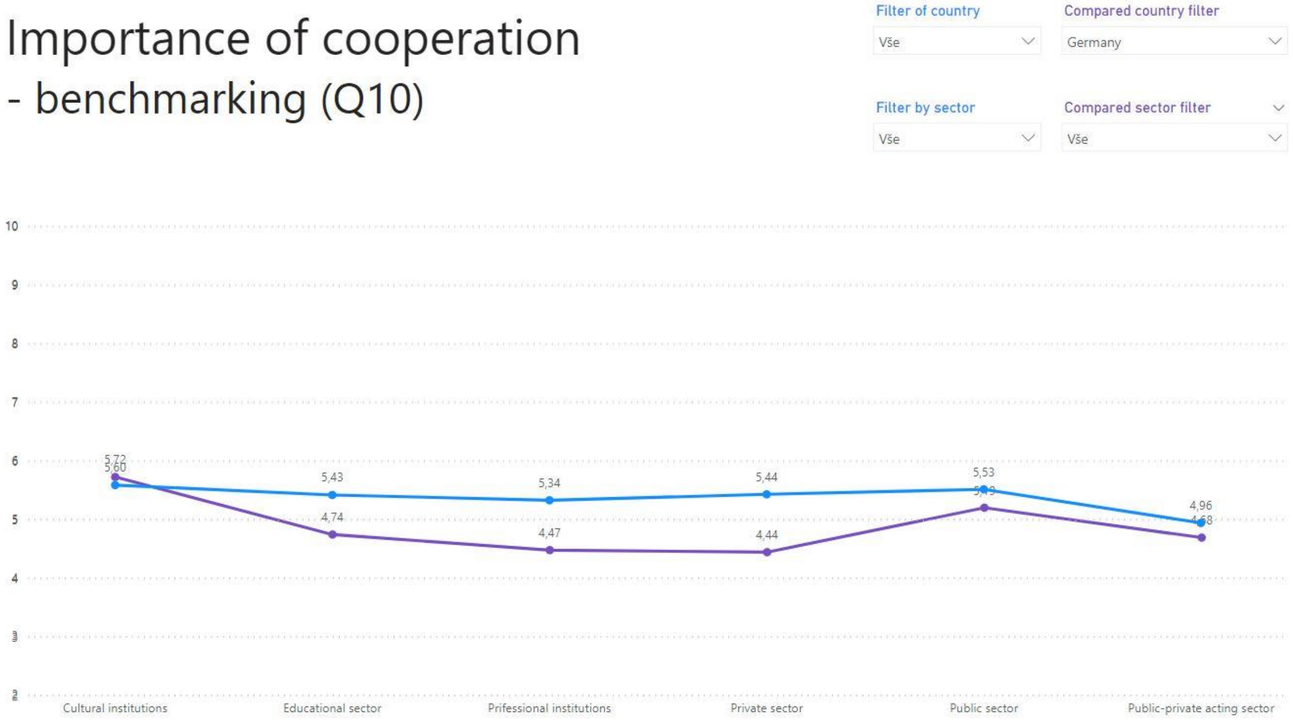


Figure 16 Influence level

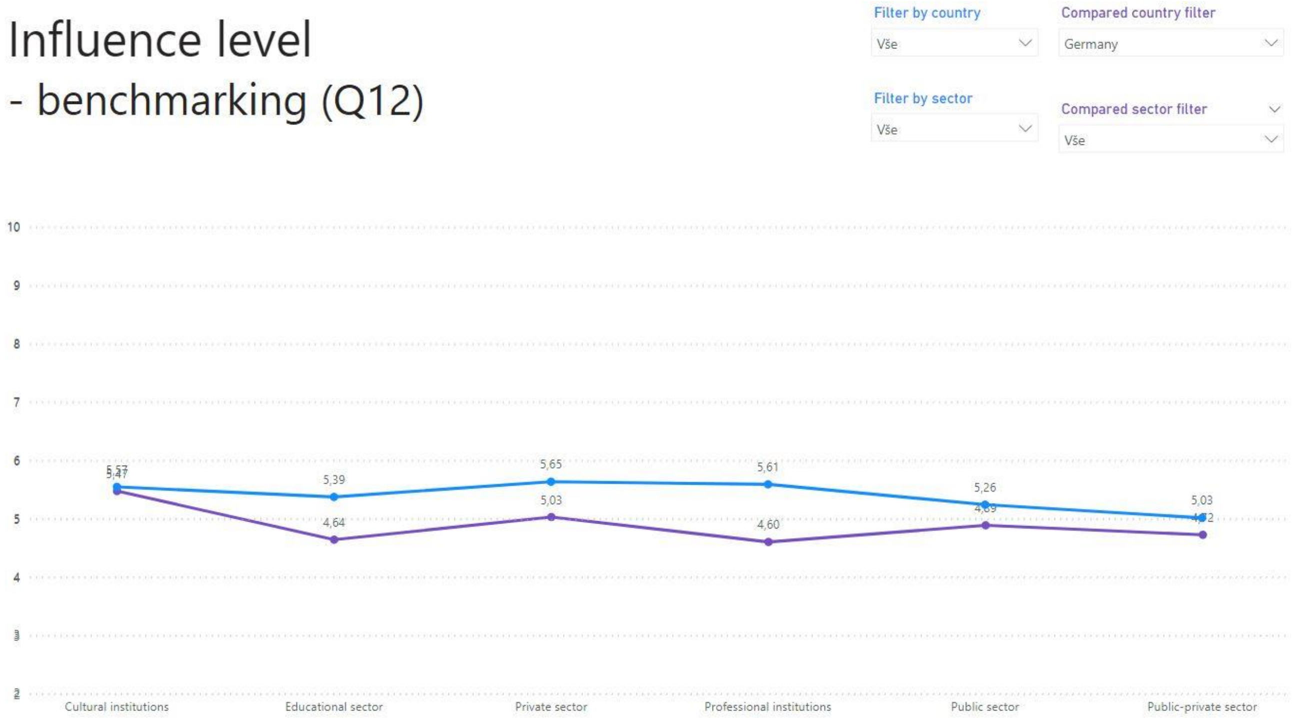


Figure 17 Activities to support the sector

Activities to support the sector (Q13)

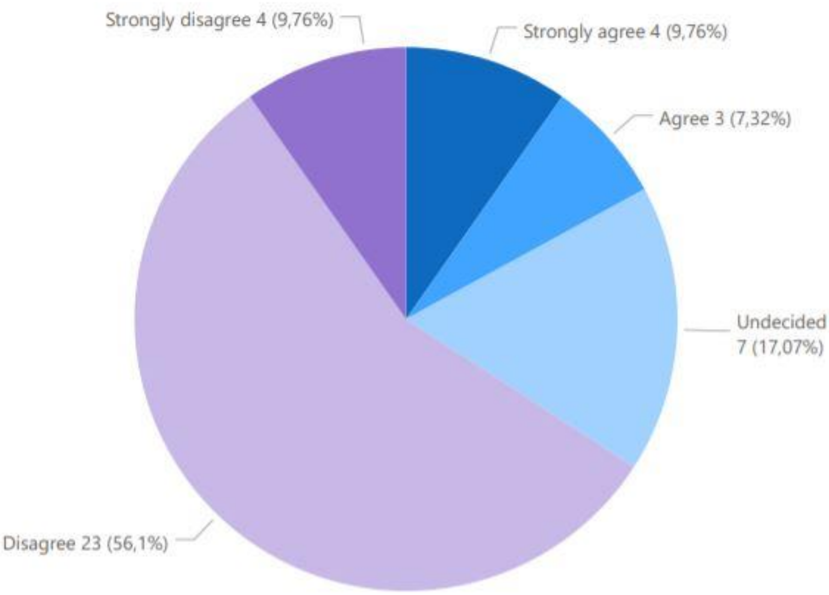
38
Cases (n)

Filter by country
Vše

Value	Cases
- bessere Möglichkeiten der Vermarktung auch für sehr kleine Unternehmen - sinnvolle Möglichkeiten der Rohstoffbeschaffung auch in kleineren Einheiten - Bündelung und Austausch von Fähigkeiten und Technik	1
- mehr Ausschreibungen und Ausstellungen von öffentlichen Institutionen, sowie Fördermöglichkeiten für Projekte	1
- Mehr Ausstellungen bei denen auch keramische Werke ausgestellt werden (z.B. in Museen und Galerien-hier gibt es häufig noch große Vorbehalte) , wären sehr hilfreich - Gezielte Informationen zu den Keramikbetrieben in der Region, gerne auch in gebündelter Form (Faltblätter und Co.) sind eine Möglichkeit - Gezielte Förderung von Messeteilnahmen, um den Fokus auf lokale Produktionsorte zu legen - Presse, Presse, Presse (und andere Marketinginstrumente)	1
- Publikation in der Tagespresse über dieses Handwerk - In Schulen den Wert von Handarbeit erklären - Ausschreibung von Wettbewerben zu Themen gesellschaftlicher Art - Das Ausdrucksmittel Ton - Aktivierung der städtischen Kultur mit gefördertem Projekten - Die Wertschätzung des Rohstoffes Ton/Porzellan fördern zum Nachhaltigkeitsaspekt gegenüber Kunststoff - Förderung der Ausstellung von Keramik und Keramikobjekten und Darstellung von Gestaltungsmöglichkeit des Materials	1
- Tag der offenen Werkstätten - HWK - Innung / Infoabende - Galerienabend	1
Aufwertung des Berufsbildes in der öffentlichen Wahrnehmung, dies müsste schon in der Schulbildung und politischen Bildung beginnen. Z.Bsp. wird der Dresdner Keramikmarkt durch das Amt f. Kultur durch die Stadt finanziell unterstützt.	1
Ausstellungen Internetauftritt	1
breit aufgestellte Fortbildungen Ausstellungen Märkte	1
Celkem	**38**

Figure 18 Level of cooperation

Q11. S: The level of cooperation in your region (country) in the ceramic sector is sufficient.



41
Cases (n)

Figure 19 Support or cooperation

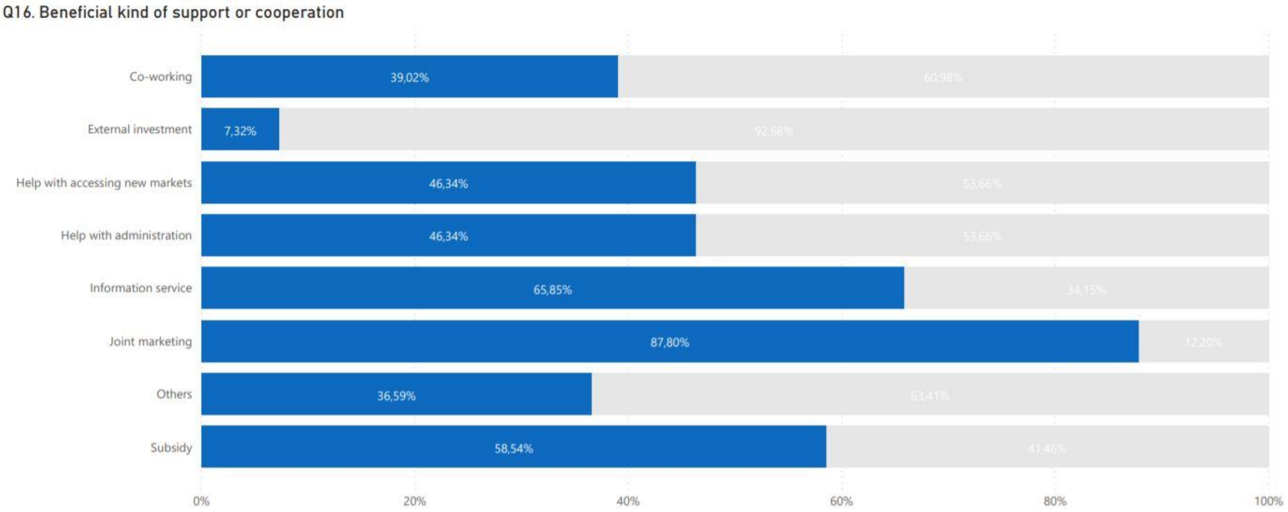
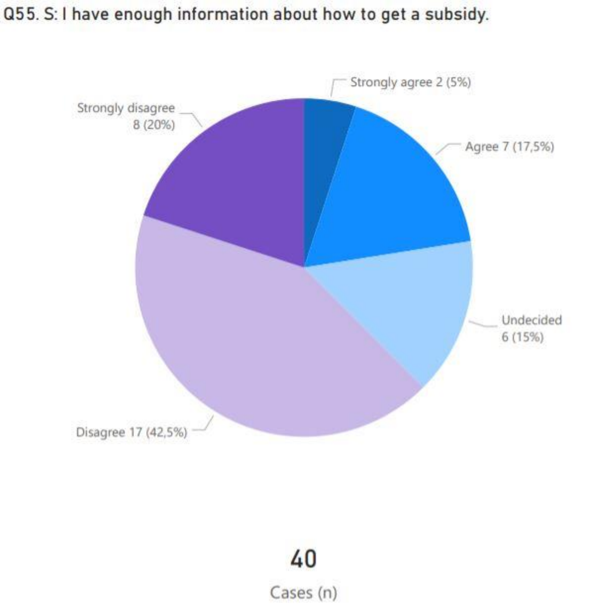


Figure 20 Attitude towards a statement



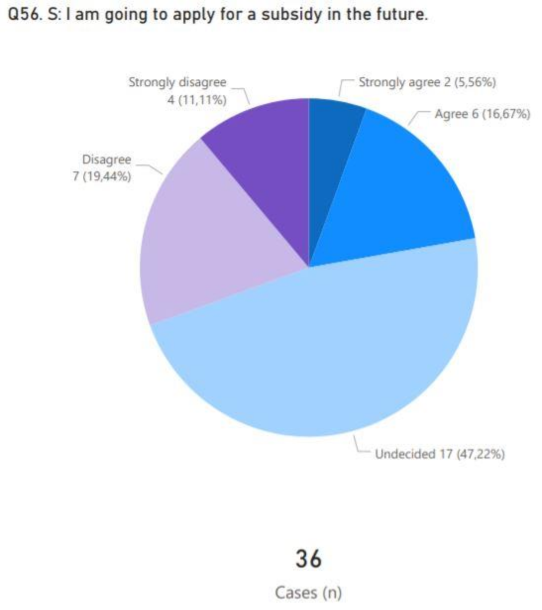
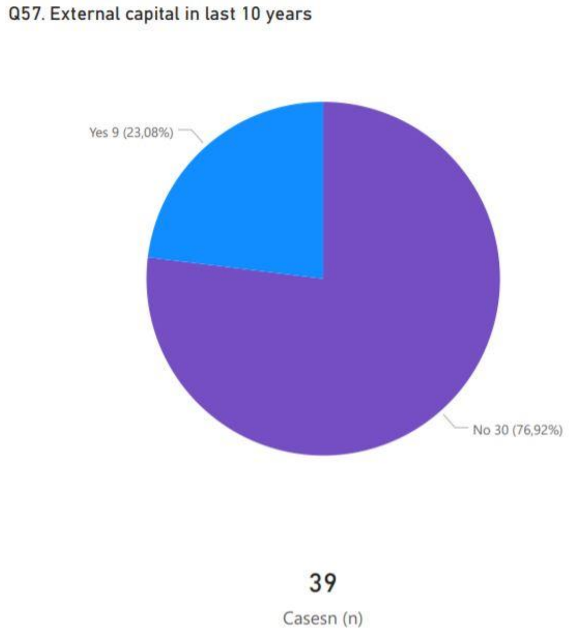
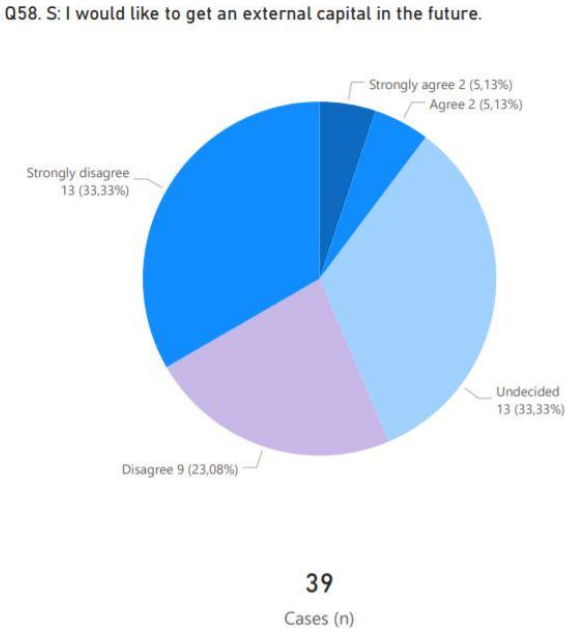


Figure 21 Financial situation, attitude towards a statement





6.3. Marketing activities

Figure 22 Currently used marketing activities

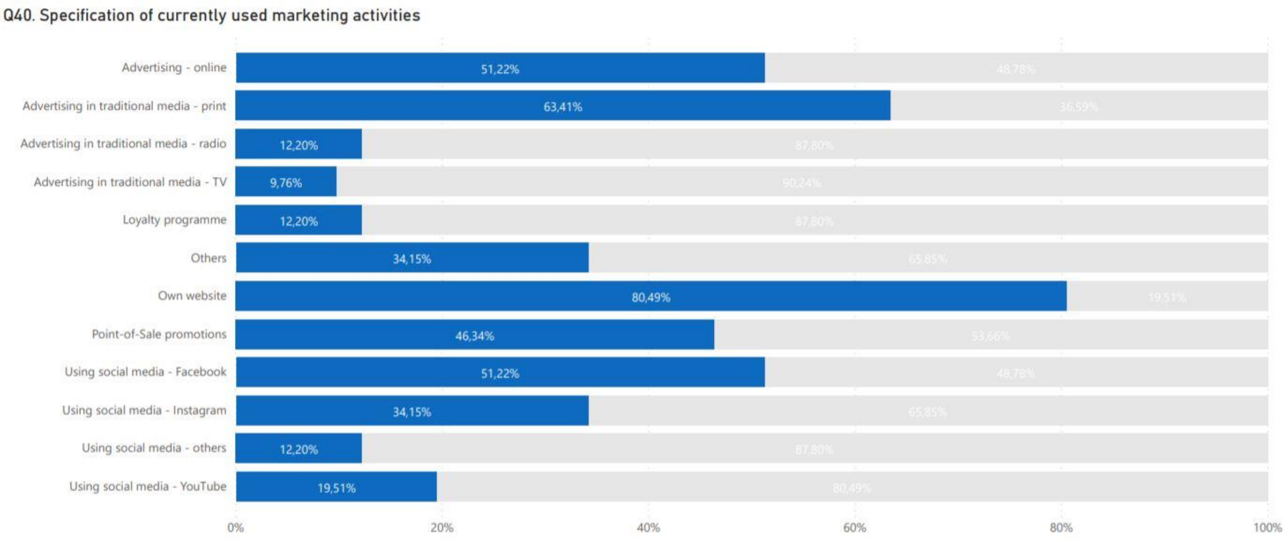


Figure 23 Marketing activities planned for the future

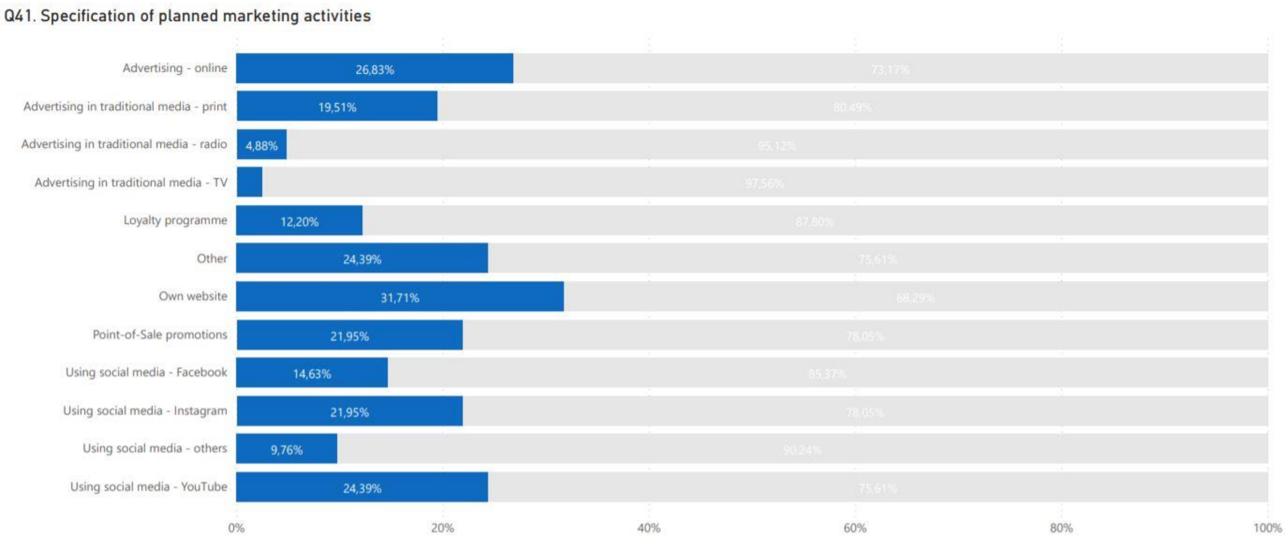


Figure 24 Responsibility for marketing activities

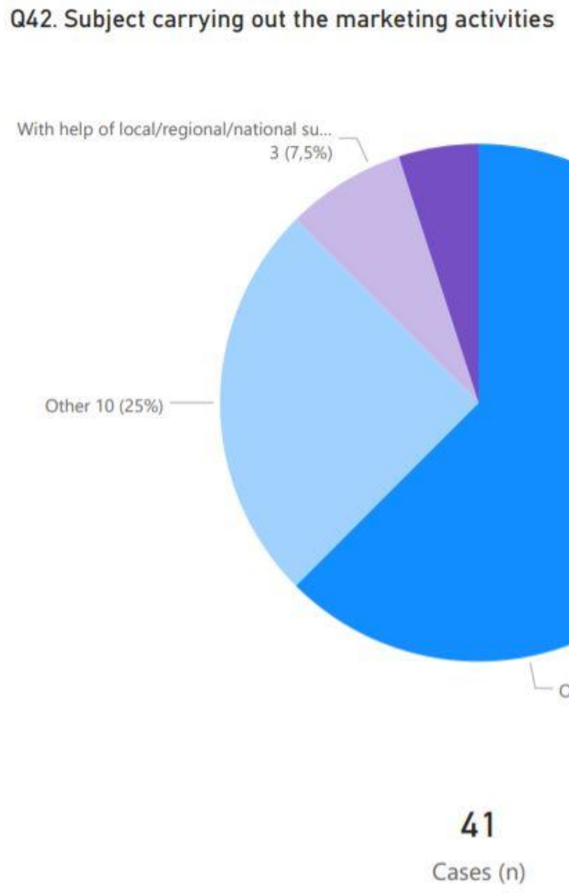


Figure 25 Participating in the marketing activities

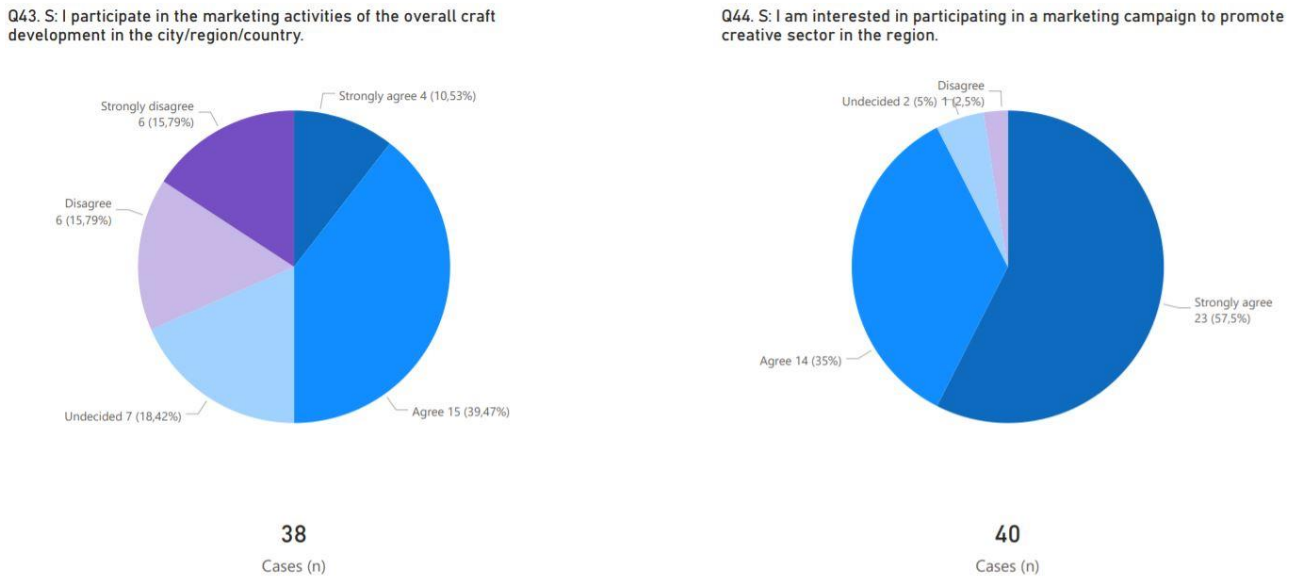


Figure 26 Marketing activities on social networks

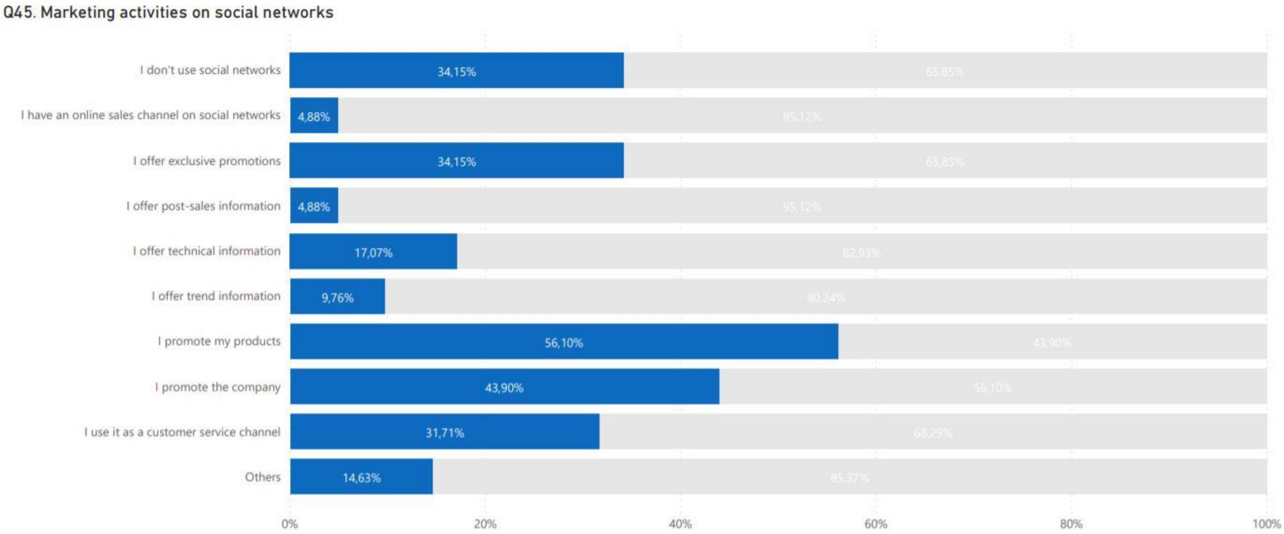


Figure 27 Feedback on social media

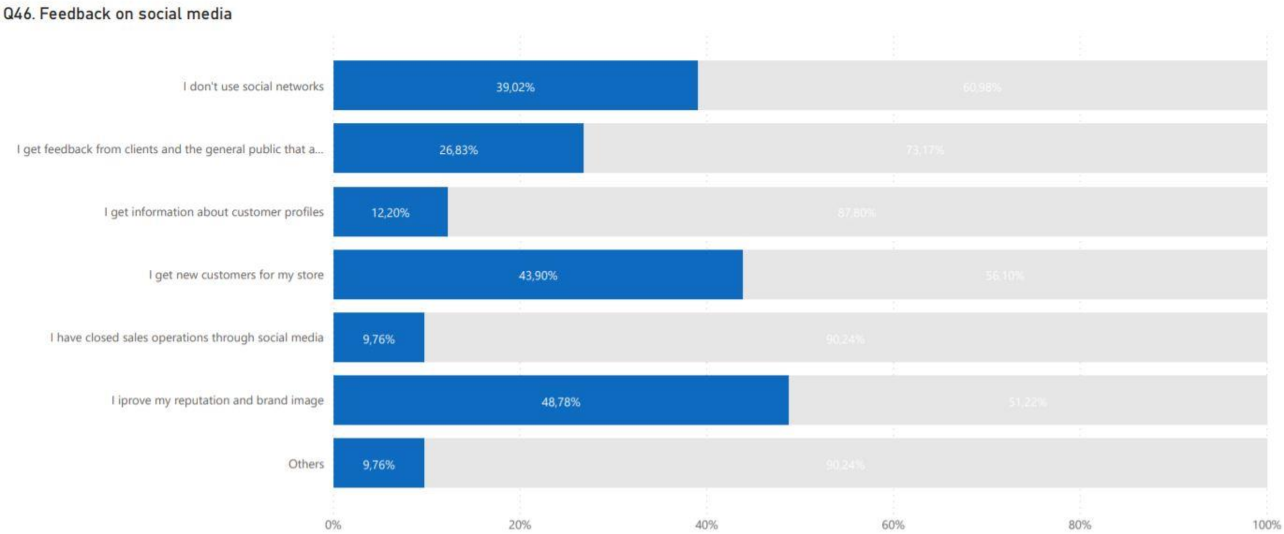


Figure 28 Currently used distribution channels

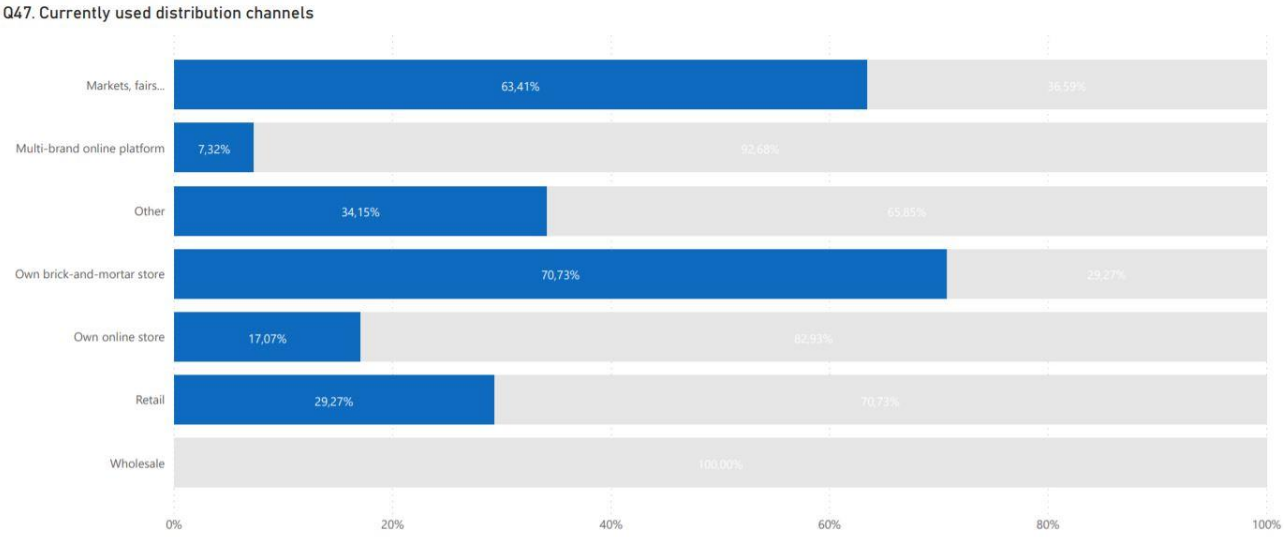


Figure 29 Planned distribution channels