Analysis of Innovation Strategy and Technological Implementation Within the Tertiary Sector in South-East European Companies

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Abstract – **Advances in innovation and technology have become a main point of interest for researchers in the field. Previous researches show high dependence of the tertiary sector upon strategy, together with lagging digitalization in European economies. This to gain insight into digital innovation strategy and actual technological implementation within companies in South-Eastern European economies. The study employs a mixed-method approach, combining both qualitative/quantitative methods. It was carried out through structured interviews. These interviews involved the use of a straightforward assessment tool to collect quantitative responses along with qualitative justifications for those responses. In total, we collected 102 validated interviews from various company managers, ensuring that no more than one assessment per company was included in our analysis. Results show deficiencies in some managers' understanding of digital strategies cascading down to insufficient or improper usage of technological tools to implement digital innovation. Initiatives in combating lagging digitalization should thus contain a significant educational component for managers and decision makers.**

1. Introduction

In an era of constant economic fluctuations and changing impacting factors, innovation and innovative strategies have become the main pillars for achieving sustainability and resilience. Innovation is considered a main catalyst in the development of today's society. The over-crowded markets and the continuously changing economic trends urged companies to constantly develop new ideas to keep up with the fierce competition in the markets. It has been demonstrated that innovation helps organizations to maintain a high degree of adaptability, novelty, and uniqueness to survive in today's industries. Therefore, we can say that innovation is "the creation and promotion of the new" [11].

On the other side, great progress in innovation can be observed in the technological sphere and modern technological innovations have had a significant impact on the development of society such as computers capable of storing an entire encyclopaedia by using an optical disc or medicine making an antidote to cure disease have revolutionized industries and contributed to changing perspectives [3]. It is therefore innovation strategy, alongside technological implications that are able to create a driving force towards sustainable business models and survival on the markets.

Intangible goods such as data and information are produced and marketed in particular in the service sector [12]. Due to their intangible characteristics, measuring the innovation degree and strategies in the case of services is a much more complex process than in the case of production processes. The service industry, also known as the tertiary sector, is however considered highly dependent on the evolution of innovation.

Services that previously could only be provided in person are now easier to transact through the use of technology since they can be made available in a digital environment.

According to the latest reports, 62% of companies in the tertiary sector are likely to have adopted at least one digital technology in 2021, however, countries in the EU still fall behind the United States of America when it comes to digitalization [6]. Given that in the case of Romania for example, the tertiary sector covers over 55% of the GDP in the territory, there is a high need for focus on development, and strategic changes in service companies in order to digitalize further [24]. Moreover, a lack of digitalization has been registered among companies active in the Romanian territory, together with Bulgaria and Hungary [23], therefore the present study tries to investigate the level of innovation strategies within companies and whether these impacts the technological tools implemented. More than that, the research explores innovation strategies implemented and levels of understanding among employees activating in the tertiary sector.

Considering these arguments, the present research attempts at narrowing the gap in-between topics of innovation and technology and their effective implementation within the tertiary sector. In other words, the research intends to acquire information regarding innovation strategies and digitalization within companies, by studying the dynamics between a lack of innovation understanding at a strategic level at its possible impact upon innovation tool understanding. In particular, the research aims to identify whether there is indeed evidence of improper implementation of digital innovation strategy within companies and in terms that is the case, there is evidence that the reason can be partially explained by improper understanding of what digital innovation strategy actually is among company managers in the sampled companies. This is important in order to offer a more specific development target for potential digitalization programs.

2. Literature Review

The relevance of the analyses conducted in this research can be outlined by considering the existing body of literature on topics such as innovation strategy, digitalization, and the role that technology plays in the tertiary sector.

2.1. Understanding the Importance of Innovation Strategies

Innovation is considered a main catalyst for enhancing competitiveness, business expansion, profitability, and the development of enduring values inside the company [21].

An innovative strategy was proposed as a clearly defined plan of structured actions that a person or team must perform in order to meet the organization's growth and long-term sustainability goals [22]. Moreover, research claims that innovation strategy should be considered an integrated part of corporate and business-level strategies, rather than being formulated in isolation [5], [10]. A firm's innovation strategy might be interpreted differently and executed in a variety of ways, including proactive and reactive methods, exploratory and exploitative, among others. Therefore, managers in innovative organizations must decide on their research and development orientation, innovation types relevant to the business, their strategy for industry technological leadership, the openness of the innovation process, and the amount of investment dedicated to innovation [5].

The author of study [19] identifies four essential ways to build an innovative organization and to efficiently embrace innovation strategies within business operations. As first priority, he suggests that organizations should hire for the mission, meaning that prospective employees should feel connected to the company's purpose and values. The goal is to cultivate a workforce that is emotionally committed to the company's success, as employees who are psychologically invested are more likely to generate innovative and valuable ideas. Another vital aspect identified is the assurance of psychological safety, meaning that employees should be able to express ideas freely and without fear of consequences. Closely linked to the above is the perception of diversity as an important element to building an innovative organization, with research constantly demonstrating that diverse teams are the most creative. Finally, teamwork respect is also underlined as an essential contributing factor in the results of the analysis into what helps organisations efficiently implement innovation strategies in their operations [19]. While a lone inventor may fit the stereotype of a great innovator, none of us is capable of developing and putting into practice remarkable solutions on our own.

2.2. Understanding the Use of Digitalization and Innovative Tools

The degree of digitalization adopted by companies in the tertiary sector is further questioned. Results of research [6] reveal that 69% of companies that are part of the European Union engaged with at least one advanced digital technology in their business strategy in 2021, however being below firms in the United States (71%).

The most likely industries to have adopted at least one digital technology are manufacturing and infrastructure (74% and 71%, respectively), followed by the services sector (62%). The adoption of many technologies simultaneously is more common in large companies than in SMEs (55% vs. 29%), however, less than one-fifth of EU businesses fall into the category of active innovators (companies that are heavily engaged in research and development before launching a new good, process, or service). Research reveals that around half of EU companies did not invest in research and development activities oriented towards innovation in 2021. Romania, Bulgaria, Hungary, and Poland are considered to be moderate (based on usage of at least one advanced digital technology by companies) in terms of implementing technologies [6].

Of note to this subject is that some authors, starting with Joseph Schumpeter, have placed emphasis on the importance of technology in business processes for a long time, which has led to the development of the Theory of Creation Destruction. Defined as the process through which information and communication technology eliminates outdated technological solutions and dismantles failing businesses to make place for the emergence of new businesses, creative destruction helps companies take advantage of the latest technologies to improve their strategies [20]. Furthermore, authors claim that companies seizing the importance of new technologies will benefit from new market insights and considerable competitive advantages [13].

2.3. Understanding the Role of Technology in the Tertiary Sector

Representing the barometer of the economy given its prevalence in some countries' economic structures, the service sector represents the entirety of services performed on a territory, resulting in intangible goods [25]. According to [2], that part of the economy that provides services is embodied in the service industry. Service industries are collectively referred to as the tertiary sector and are a growing branch for developed economies, indicating the wealth and development of a nation's economic system [2], [9], [25].

The service industry managed to become the most dynamic economic sector from the point of view of world trade, thus playing an essential role not only in the national economy but also in the global one. This phenomenon of globalization of services is achievable through the implication of factors such as liberalization, increased consumption and investments, however the decisive factor is nowadays considered technology.

Services that could only be delivered in person are now much easier to transact through technology as they can be delivered digitally. The World Trade Organization's 2019 report argues that the main driver of change is technology [25].

Despite the importance of technology, previous research has produced additional reasons other than infrastructure and financing for lagging digitalization in Europe. Results obtained in [23], where levels of digitalization were explored together with potential reasons for the lack of implementation of relevant technologies in SMEs in Romania, corroborated that smaller companies have in general a lower degree of digitalization despite it being relatively easier to implement. Some potential reasons for this were a reactionary mindset of waiting for growth to justify technology investments, a lack of options for SMEs who may not necessarily want to expand into major organizations, and a lack of awareness of innovation and digitalization benefits for businesses without an innovation culture. Additionally, the study confirmed a positive trend of companies' size having a greater impact on the level of digitalization.

However, there is a shortage of research in the existing literature concerning the practical understanding of how inventive strategies can be effectively implemented through digitalized tools. Our paper aims to explore the degree of understanding of innovation at the strategic level, by following the idea that a lack of innovation strategy understanding can become a source of lack of innovation tool implementation, due to a lack of executive support or investments. At the same time, the research also intends to assess whether there is a deficiency in the transition from innovation strategy to actual implementation of innovative technology and innovation management within companies.

3. Methodology

In order to conduct the study, an Innovation Health Assessment was conducted using a similar tool to [18]. The purpose of this survey, which uses a Likert scale, is to gauge how well-developed an organization's innovation infrastructure is. Although the instrument is quite comprehensive we are primarily concentrating on the strategy and technological tools used in the organizations. This is because we want to emphasize the connection between strategy and digital technologies engaged to enhance organizational innovation.

For an enhanced investigation of this subject, the present research additionally aimed at comparing and contrasting employees' perspectives upon innovative strategies to what innovative tools are actually implemented within companies. Therefore, our structured interview consisted of sections dedicated to qualitative argumentations of respondent's views.

The interview guide consisted of two sets of questions, covering themes of *strategy and tools*, as follows:

Strategy

1. Do you have an established innovation program and a planned activity calendar?

2. Does your innovation program have executive support?

3. Are your innovation investments aligned with your corporate strategy?

Tools (technology)

1. Has the organization established a system of record for innovation management?

2. Is your organization up to date with the use of technology in its industry?

3. Is your organization regularly updating a list of technological options that could improve its activity?

Surveys were conducted at the end of the year 2021, beginning of 2022. Each survey was conducted in the form of an in-depth structured interview in order to obtain the interviewee's authentic explanation for the choice of response in addition to the quantitative data generated by the interview.

The research was conducted following a series of specific objectives:

O1.: Assess the level of managers' understanding of strategy in relation to the tools actually implemented.

O2.: Assess the relationship between innovation strategy and actual usage of innovative technology or innovation management tools for the purpose of increasing innovation within companies.

O3.: Explore whether there is connectivity in-between company size and levels of innovation understanding.

The following conditions were upheld throughout the study to ensure that the data was as accurate as possible:

No respondents were in direct contact with the researcher before or during the administration of the assessment tool;

The assessment tool was carried out by independent interviewers who were proficient in translating from English to the local language, at a cost-effective rate in cases where the interviewees had limited English proficiency; The requirement that the data be collected for academic purposes and completely anonymized to any parties other than the researcher, research administrators (those facilitating the centralization of data), and interviewers had to be obtained by the interviewers before the interviewee agreed to participate in completing the tool.

The interviewers' only instructions were to ask the interviewees questions and prompt them to offer reasons for their replies in order to gauge the condition of innovation management in their business. They were not given any specific desirable answers or specified aims.

Each interviewer was required to provide the instrument to just one person, once.

The candidates for the interviews had to have management or analytical positions inside the company in question and have at least one year of seniority there.

In order to make data validation easier, the interviewees were asked for their direct contact information.

4. Research Sample

The research relies on having a large number of willing participants as possible within the target population: managers or owners of tertiary sector enterprises active in South-East Europe. Willing participants were not refused, but there was a maximum of one valid assessment per enterprise taken into consideration for analysis.

4.1. Research Sample description

The sample of our research was initially formed out of 155 responses, however, only 102 assessment tools were considered valid for our study. Interview data was collected from managers and business owners fitting the above individual profile, that were active at the time of the interview in companies operating in Romania, Bulgaria, Hungary and to a minor extend other countries in the region. Most managers and business owners were interviewed online, through teleconferencing software (usually Zoom or Google Meets). Our main focus is on comprehending how profit-making firms implement and understand strategy and technology in an effort to innovate and develop on the market, we have removed from the analysis pool those organizations that are classified as Non-Governmental Organisations (NGOs). Moreover, for the sake of this study, only companies operating in the service sector were selected. Prior to review and processing, distinct Identifiers (IDs) were allocated to the assessment instruments, which were centrally located.

The validity conditions considered are derived from the administration conditions of the aforementioned tool, with some additional data validation aspects:

Interviewees needed to hold senior positions within the organization with the authority to evaluate the status of its innovation initiatives.

Interviewees had to be part of an organisation operating in the service sector.

The submitted data needed to be validated with qualitative reasons.

For organizations that were duplicated, only one entry was used (interviewers may have approached interviewees from the same company).

Data that has been encrypted and is securely kept on a drive that is only accessible by the researcher and the service provider (Google), with no explicit permission granted for the storage service provider to access or use the data.
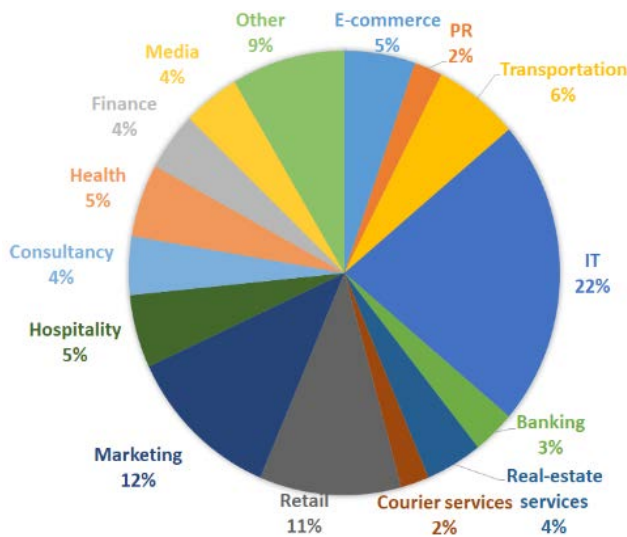

Figure 1. Analysed companies in the tertiary sector by branch of activity

Our research considers that digitalization can bring considerable benefits to the development of the tertiary sector, therefore our sample was formed out of companies operating in this sector (Figure 2). We can witness broad fields of activity, from IT and marketing covering the highest percentages, 21% and 11% respectively, to courier services and PR services, each occupying 2%. The variety of services covered is considered beneficial to our study, as it enhances it applicability and validity to the sector and it contributes at creating a wider picture of the topic under analysis.

4.2. Data Processing

To conduct the qualitative analysis, more precisely the justifications of participants to the answers in the assessment tool, we created and populated a new variable "strat_und". This was used to categorize, based on arguments, whether the employee seemed to show enough knowledge regarding innovation strategies and its tool.

Strat_und = Innovation strategy understanding is a variable evaluating interviewees' understanding of what an innovative strategy means, what it is formed of and how it is implemented within a company.

This newly formed binary variable took the form of an indicator variable, with 0,1 values, as further explained:

The interviewee shows insignificant innovation strategy understanding, confusion is witnessed when faced with innovation strategies and specific terms (e.g.: innovation program, innovative executive support, innovation investments, corporate strategy).

The interviewee shows a good level of understanding of an innovative strategy, investments in innovation, executive support.

Following the same objective, that of processing qualitative data, we created and populated a secondary binary variable, that of "tech_und". Technology understanding was used to assess whether the interviewee looked to have sufficient expertise of digital technologies for innovation management for his quantitative responses to be considered.

Tech_und = Innovation technology understanding of the proper role and usage of innovation technology and innovation management tools

The interviewee shows a low level of understanding innovation management tools and innovative technology tracking and assessment for usage within the company, often making confusions with software or hardware designed for other business intelligence purposes.

The interviewee shows a clear understanding of innovation management tools and innovative technology tracking and assessment for usage within the company.

The rest of the variables were noted as:

Avg_strat = Strategic focus on innovation, calculated as the average of the answers to the questions in the strategy category which corresponds to an overall perceived strategic level focus on innovation within the company.

Avg_tech = Innovation technology implementation, calculated as the average of the answers to the questions in the technology category which correspond to an overall perceived level of usage of innovation management tools and innovative technology tracking as well as innovation technology assessment within the company.

c_size = ordinal variable taking discrete values from 0 to 4, representing respectively: microenterprise (<10 employees), small enterprise (<50 employees), medium enterprise (<250), large enterprise (250+). Revenue limits were not considered due to lack of access to current data.

Based on the number of employees, each company size was split into 4 categories:

- *Category 1 – less than 10 employees (microenterprise)*
- *Category 2 – less than 50 employees (small enterprise)*
- *Category 3 – less than 250 employees (medium enterprise)*
- *Category 4 – more than 250 employees (large enterprise)*

Revenue considerations related to company size categories were eliminated due to simplicity concerns and lack of full access to current financial data of the interviewed companies.

All variables have been arranged in an ordinal format to simplify the quantitative analysis using the Spearman correlation. The statistics program SPSS 29 was used to process the data and conduct cross-tabulations.

5. Results and Discussions

As mentioned in the previous section of this paper, our research gathers both quantitative and qualitative data, aimed at bringing an authentic perspective of the proposed subject. It is therefore considered essential to analyse the outcomes of the two categories and to later discuss similarities and differences.

5.1. Quantitative Data Results

Calculations using Spearman correlations have been conducted in order to test correlations in-between the proposed variables. The following table (Table 1) shows the obtained results, through the use of SPSS statistics program:

Table 1. Spearman correlation table for pairs of variables

Variables	Spearman Correlations	Significance
C_size vs. Strat_und	0.287	0.004
Avg_strat vs. Strat_und	0.227	0.022
Avg_strat vs. Avg_tech	0.303	0.002
Strat_und vs. Tech_und	0.174	0.082

5.1.1. Company Size vs. Innovation Strategy Understanding

Under a 5% significance level and even the 1% significance level, we can witness a small positive correlation of 0.287 between the size of the company

and the understanding of innovation strategy. Therefore, results show that as companies grow there is a better understanding of what a long-term innovation strategy should look like.

However, because strategy understanding is a binary variable dependent on a minimum level of proven understanding of how innovation strategy questions should be analyzed and answered, it does not produce a significantly large amount of information as to what in particular is lacking in terms of understanding.

5.1.2. Strategic Focus on Innovation vs. Innovation Strategy Understanding

A slight positive correlation can be observed in-between average strategy understanding and the binary variable, innovation strategy understanding. This result was obtained under a weaker significance level, that of 0.022 level of significance.

As expected, an increased understanding of innovation strategy development in a company reflects in increased executive support, investments, and usage of innovation strategy tools. The result is not significant under 1% significance level but it is still well within 5% significance level leading to accept the results as valid for judgement.

5.1.3. Strategic Focus on Innovation vs. Innovation Technology Implementation

A slightly stronger positive correlation is registered between average strategy understanding and the average digital tools, under 1% significance level. This indicates that increased executive support, investments, and usage of innovation strategy tools is reflected in the implementation of technological or digital tools in the company that improve innovation management and facilitate continuous improvement in terms of innovation practices.

5.1.4. Innovation Strategy Understanding vs. Innovation Technology Understanding

Contrary to expectations, a result exceeding the 5% significance level (0.082) indicates that there is no correlation between innovation strategy understanding at managerial levels within companies and the understanding of actual tools implemented or innovation management options and tools considered for implementation in company activity.

This offers evidence that there is a disconnect between the strategic level and the line level in terms of innovation practice and expectations. It could also indicate that innovation strategy is simply not being properly implemented or understood at lower management levels.

5.2. Qualitative Data Results

Thematic analysis was used to identify patterns within respondents' qualitative answers. Being the "process of moving across data and selectively grouping particular aspects" [7], thematic analysis is widely used by researchers to find common themes.

5.2.1. Innovative Programs and Tools

Previous research claimed that innovation strategies should be considered as an integrated part of corporate and business-level strategies, rather than being formulated in isolation [5], [10]. Results of our survey are in line with the identified literature, as we can witness perceptions following a constant presence of innovative activities in establishing strategies. Table 2 reveals the most common key perceptions of managers and employees in the targeted companies when the research question "Do you have an established innovation program and a planned activity calendar?" is addressed:

Table 2. Innovative programs and tools qualitative results I

Interview Question	Answers
Do you have an established innovation program and a planned activity calendar?	innovation-oriented regular meetings (annual/monthly/weekly)
	design thinking sessions
	internal business competitions
	teambuilding
	jam sessions brainstorming
	feedback sessions with clients
	strategy session (with clients)
	thematic events
	webinars
	training courses
	conferences

As supported by [19], the innovative organization is built by creating a safe work environment, where employees feel free to express their thoughts and ideas, while also emphasizing the importance of teamwork.

Results of our survey are validated by literature, employees perceiving innovation through a series of activities that are capable of enhancing determination and increasing connectivity and creativity in the workplace environment: regular meetings, feedback sessions, team-buildings, events, and webinars. Additionally, brainstorming activities are able to enhance employees' psychological safety, as they feel free to express and share their business ideas. Previous literature highlighted the importance of integrating brainstorming activities as part of a business' processes. A study developed by [1] explores the benefits of using brainstorming in creating problem-solving skills, demonstrating the efficacy of using the brainstorming strategy to develop creative thinking skills. Additionally, previous literature defines brainstorming as a particular kind of problem-solving where the answer is self-generated rather than acquired from assistance [1].

Through the results of our research and selected literature, we highlight the importance of integrating activities that can enhance innovation among employees. Moreover, resulting examples of our interview outputs create a framework of relevant solutions to enhance innovation levels within any organization, aimed at enriching knowledge in the targeted field.

5.2.2. Working in Dedicated Teams for Innovation & Cross-Departmental Teams

Cross-departmental management teams and dedicated teams for innovation are considered beneficial for enhancing ideas generation and innovation levels. The most prevalent initiatives to encourage innovative working are those that focus on leadership development, cross-functional collaboration, and brainstorming exercises [17].

Through thematic analysis, our research further identified a total of only 21 interviewees perceiving working in dedicated and cross-departmental teams as being highly beneficial to increasing innovation. Cross-functional teams are groupings of people with various opinions and areas of expertise who work together to achieve a shared goal, as opposed to most departments, which are organized according to competence and purpose. Bringing together people with different viewpoints and backgrounds can be highly beneficial for a company's projects, as suggested by [16]. However, most companies are not employing cross-functional teams as effectively and efficiently as they could [8].

Overall, only 20% of valid responding companies in our sample benefit from integrating teams dedicated to increasing innovation or cross-departmental teams. The answers belonged to the same research question, as observed in Table 3:

Table 3. Innovative programs and tools qualitative results II

Type of Innovation Initiative	Companies
dedicated teams for innovation	7
cross-departmental teams	14

5.2.3. Executive Support

Our research considered executive support as being an essential factor in creating and supporting innovative strategies. By addressing the question *"Does your innovation program have executive support?",* we have obtained a total of 18 respondents explicitly stating that they experience management support within their companies, having their CEO's involved in innovating business products services and processes. The majority of such firms belonged to industries as media, insurance, banking, and commerce.

5.2.4. Investments in Innovation

By employing an innovation portfolio management approach, companies systematically fund the finest chances and concepts that have the most potential and that are in line with firms' overarching goal. At the EU level, around a third of EU firms (34%) developed or introduced new products, processes, or services as part of their investment activities in 2021 [6].

However, management involvement registered in our previous research question *"Does your innovation program have executive support?"* does not seem to impact investments in innovation. Outputs of our interviews reveal a small number of companies directly funding ideas and opportunities with high potential to increase innovation.

The research question *"Are your innovation investments aligned with your corporate strategy?"* received a positive response only from 9 participants who mentioned heavy to medium investments dedicated to innovation, aligned with overall strategy. The rest of the participants did not mention anything about having budgets dedicated to innovation investments or any innovation portfolio management approach.

Moreover, we can critically observe the discrepancy in-between levels of investments dedicated to innovation and the methods in place to organize teams to increase creativity and innovation. There is a relatively consistent number of companies adopting cross-departmental teams and dedicated teams to increase innovation levels, however, on the contrary, a discrete number of observations have been made regarding budgets allocated to innovation investments. If we analyse data obtained by European Investment Bank Survey, conducted in 2022, we can observe similar trends. Even though in 2022, European firms were recovering well from the damages created by the COVID-19 pandemic, the share of firms making no investment plans slightly increased from 9% to 11% [6].

5.2.5. Lack of Innovation Strategy Understanding

Apart of the respondents having a clear understanding and perception towards innovative strategies, we have identified a series of participants showing low understanding of innovative strategies, or just making confusions of specific innovation specific tools. The following table of excerpts (Table 4) obtained from the interviewees' most significant comments was determined to be pertinent to illustrate this fact:

Table 4. Lack of innovation strategy understanding

ID	c_size	c_industry	Arguments
1209	1	IT	No scheduled activities mentioned, no specific topics of innovation.
1220	3	PR	The company innovates "only when there is a need" to meet competition, no clear understanding of a long-term strategy, no continuity of strategy.
1225	2	Commerce	The respondent claims that the company does not have enough funds to allocate a budget to implementing innovations.
1228	2	Real estate services	Confusion between establishing an innovation strategy and organizing a working program, no strategy in place.
607	1	Sale of imported goods	Innovation activities confused with coordinating activities.
818	1	Health services	Respondent considers that the company is "too new to the market" to innovate. Unclear knowledge regarding innovation management.
1200	1	Commerce	No innovation strategy understood, innovation confused with regular operational meetings.
912	2	Hospitality	Innovation is only correlated with expansion activities, no focus on innovation, no strategy behind business operations.

We can firstly notice that respondents showing low understanding and/or low interest in innovation activities belong to SMEs companies, most being small and microenterprises, belonging to various service industry branches, such as IT, commerce and health related services. This makes us consider that company size is influencing levels of innovation strategies understanding among employees in profit-making companies. In other words, employees belonging to smaller companies register a lower degree of understanding and/or interest in innovation and its implication within business operations. This validates our previously presented Spearman correlation of 0.287 between the size of the company and the understanding of innovation strategy.

On the other side, Table 4 shows a lack of understanding by employees of differing service industries, indicating that the industry type may not represent an impacting factor when assessing levels of strategy understanding.

What is interesting to note is the misunderstanding of the role of sustained economic growth realized by innovative strategies within companies. Out of the companies showing a lack of innovation strategy understanding, the largest is a medium-sized company operating in the PR services sector. It is stated in its assessment that they innovate only when there is a "need to meet competition", showing that innovation is not integrated in business processes and can be misunderstood even for a company that has grown to a significant size.

Assessment results additionally reveal a great part of respondents making confusion in-between innovation-oriented activities/meetings with coordinating activities and regular meetings. Individuals with such behaviours mainly belonged to the areas of sales/commerce and real-estate services. Moreover, there are participants (ID 1225) who associate innovation only with high investments, claiming this as being the major and only barrier for not innovating. Start-ups and especially small companies state that they are 'too small' or too 'new to the market' to innovate. However, we consider it essential to educate companies, and implicitly, all the parties involved in the business process, towards the importance of innovative strategies and their implementation. Through encouraging innovation, creating efficiency, and enhancing digitalization, companies in the tertiary sector have the ability to promote more equitable and sustainable growth [15].

6. Conclusions

Our research shows positive trend in-between levels of innovation strategy understanding and company size, resulting from our quantitative and qualitative data.

It is therefore observed that the size of a company can impact levels of innovation strategies understanding. However, the research is limited by the fact that data were primarily gathered in a limited area (South-Eastern Europe) at a single point in time (2021). As a result, the research cannot be used to make generalizations about the EU; rather, it can only be used to say that the data sample appears to follow the general European trend.

As would be expected, a better understanding of innovation strategy within an organization determines a high degree of executive support and investments, and utilization of innovation strategy tools. More than that, results show increased executive backing, investments, and usage of innovation strategy tools, which are reflected in the adoption of technological or digital tools within the organization that enhances innovation management and support continuous development of innovation practices.

However, the study highlights several companies in the tertiary sector lacking a long-term innovation strategy, following the European trend of 2021, which reveals that around half of EU companies did not make investments in research and development activities oriented towards innovation during that period [6]. A summary of the main reasons for companies in our research lacking innovation strategy would be: *Lack of understanding of the importance of innovation strategy implementation for newly created SMEs. Reluctance towards making investments in innovation (financial barrier invoked). Lack of knowledge of what an innovation strategy consists of and the benefits it can bring to the business.*

The research unveils discrepancy in-between levels of innovation strategy understanding and technology understanding among employees in the tertiary sector. If we are to interpret such results at an individual level, we may consider that there is a misunderstanding of employees towards what innovative strategies and digitalization within companies actually means. However, at an organizational level, a top-down managerial communication or implementation problem can be argued as a primary reason for the problems identified. Even though investments and executive support are moderately made within the analysed services, tools do not seem to be properly engaged in business activities. An extensive future research may analyse levels of efficiency of transmitting and assimilating information from managers to employees.

All this indicates that digitalization programs in the tertiary sector in South-East Europe should be spearheaded by educational programs aimed to ameliorate strategic understanding of digital innovation and digitalization strategies.

In addition, a particular emphasis should perhaps be placed on having innovation strategies as a topic of development for employees and also having innovation strategy dissemination as a key managerial communication objective in order to combat the fore-mentioned discrepancies.

6.1. Limitations of the Research and Future Perspectives

While the present research is oriented towards companies that are active in multiple countries of South-East Europe (Romania, Hungary, Bulgaria), most of the companies, especially at the SME level, were active only in the Romanian market, thus mostly covering in significant numbers the individual perspectives of Romanian small business owners or managers. We further propose extended research on broader areas, including analysis of more countries, with a focus on the sampling to include a larger proportion of SMEs active outside Romania. In addition, developing a larger scale study comparing and contrasting different perceptions towards innovation strategies and technology implementation in various countries would highly enrich the present status of research on the subject.

Even though the research covers a wide variety of service sector branches, given that the data collection increasing the number of participants to the study would enhance its credibility and applicability. This is especially true regarding the quantitative aspect of the data, where, by utilizing the creative research systems [4] sample size calculator, in order to test the confidence interval resulted from our sample there is an almost 10% error interval. More specifically, according to [14], at the beginning of 2021, the total of active SMEs in the Romanian tertiary sector was of 403501 companies. With a confidence level of 95% and a sample size of 102 firms, we obtained a confidence interval of 9.7. This indicates that we are 95% sure that at the population level, there will be +-9.7% with the same attitudes as those in our sample. Needless to say, it is recommended that the sample is increased to at least 385 in order to generalize quantitative conclusions with a 5% error at a 95% confidence, for a population of companies up to 1000000 which would include those active in the countries analysed.

Furthermore, we propose an extended analysis of innovation and technological understanding in the primary and secondary sector. Businesses engaged in the extraction and manufacturing sectors have greatly benefited from implementing new technologies, together with strong innovation plans.

It would therefore be stimulating to observe perceptions and attitudes to innovation in such industries, especially in a region like South-East Europe which has traditionally relied on cheap labour to compete.

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