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ECOLOGICAL ACTIVITY OF EUROPEAN SMES: RESOURCES, GREEN CAPABILITIES AND ENVIRONMENTAL SUPPORT

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Purpose: Despite the existence of many valuable scientific studies on the sustainable initiatives of modern enterprises, there is a lack of empirical analyses that could offer specific insights into the predictors of such activities, especially in the context of consolidating various theoretical concepts. Therefore, this study aimed to answer the question: What factors contribute to European SMEs offering an increasingly wider range of green products or services, and how can these companies simultaneously develop internal resources, green capabilities and leverage external support to successfully undertake such activities?
Design/methodology/approach: The analysis is quantitative and covers 573 SMEs operating in all 27 EU countries. The data source is the Flash Eurobarometer FL549 survey entitled 'SMEs, resource efficiency and green markets', conducted by Ipsos European Public Affairs in 2024 on behalf of the European Commission.
Findings: The study's results indicate that environmental support for SMEs is relatively insignificant compared to the role of their internal resources and green capabilities, which, according to statistical modeling, significantly strengthen these companies' potential to offer green products or services.
Originality/value: The paper's critical scientific contribution lies in the conceptual consideration of three complementary theoretical perspectives: the Resource-Based View of the Firm, Dynamic Capabilities Theory, and Resource Dependency Theory. These perspectives enable a more comprehensive understanding of the predictors of green business activities by European SMEs.
Keywords: Ecological activity, SMEs, green capabilities, environmental support.
Category of the paper: Research paper.

1. Introduction

The social and political transformations currently taking place in Europe, linked to climate change, the energy crisis caused by European countries' high dependence on Russian energy, and growing competition from China and the United States in the implementation of net-zero emission technologies (Olczyk, Kuc-Czarnecka, 2025) mean that environmental issues are

becoming an integral part not only of international political initiatives, but also of the practices and strategies of a growing number of European companies. The new EU growth strategy (The European Green Deal, EGD) and the consequences of Russia's aggression in Ukraine, including supply chain disruptions, rising raw material prices, and turmoil in global financial markets (Cui et al., 2023), have only reinforced the need for companies to operate in an environmentally friendly manner. Although the sharp rise in energy prices and the reduced availability of traditional energy sources (Haug et al., 2025), as well as the stringent EGD targets (55% reduction in emissions by 2030 and climate neutrality by 2050) (European Commission, 2019) are putting pressure on many companies, they also create opportunities for them to gain a competitive advantage by offering an increasingly wide range of green products or services (Hofmann et al., 2012; Chen et al., 2016).

An analysis of the literature shows that effective sustainable practices are primarily the domain of large companies with significant resources and an established market position, which make extensive use of economies of scale and stable green networks (Noci, Verganti, 2003; Kammerer, 2009; Albino et al., 2012; Kesidou, Demirel, 2012; Dahri et al., 2025; Putri et al., 2025). This logic is due to several challenges faced by SMEs, such as structural and institutional barriers, resource constraints, market competition, resistance to change, and difficulties in integrating environmental issues into their business activities (Hessels, Terjesen, 2010; Triguero et al., 2013; Klewitz, Hansen, 2014; de Jesus Pacheco et al., 2017; Putri et al., 2025; Sabando-Vera et al., 2025). Despite the significant contribution of academia to understanding these challenges, existing research findings remain diverse, fragmented, and ambiguous regarding the determinants of green practices by SMEs. Therefore, there is a need not only for further academic research, but also – from a more practice-oriented perspective – answering to the question: What factors contribute to European SMEs offering an increasingly wider range of green products or services, and how can these companies simultaneously develop internal resources, green capabilities and leverage external support to successfully undertake such activities?

The literature review also indicates that the vast majority of academic authors focus on analyzing how the development of green products or services leads to economic benefits for companies, especially in terms of improving cost efficiency (e.g., Hojnik, Ruzzier, 2016; Chan et al., 2016), competitive advantage (e.g., Aragón-Correa, Sharma, 2003; Forsman, 2013; Achmad, Wiratmadja, 2025), or brand recognition and image improvement (e.g., Chen, 2008; Bossle et al., 2016). An alternative research trend involves identifying predictors of SME environmental activities. However, the current scientific output in this area is relatively limited, as it consists mainly of theoretical research (using a systematic literature review method, e.g., Bossle et al., 2016; del Río et al., 2016; de Jesus Pacheco et al., 2017), which indicates a lack of empirical analyses, especially those requiring the consolidation of various theoretical concepts. This paper aims to fill this research gap by empirically testing a model that makes an original scientific contribution by integrating three complementary theoretical perspectives:

the Resource-Based View of the Firm (RBV), Dynamic Capabilities Theory (DCT), and Resource Dependency Theory (RDT). To answer the research questions, an empirical analysis was conducted using data from Flash Eurobarometer FL549 entitled 'SMEs, resource efficiency and green markets' (European data, 2024). The survey was carried out in June 2024 and covered 573 SMEs operating in all 27 European Union countries. The results of the analysis may contribute to more detailed research on not only the conditions for effective green practices among European SMEs, but also on their green capacity building, which, as researchers emphasize, remains an under-explored field of research (Putri et al., 2025).

The study is structured as follows. In the next section, a review of the relevant literature and the hypotheses are presented. This is followed by a brief discussion of the research methodology. Finally, the results obtained from the empirical analyses and their implications are dealt with. A concluding section summarizes the paper and outlines avenues for further research.

2. Literature review and hypothesis development

The development of green products or services by SMEs is characterized by a high degree of complexity, resulting not only from the need for companies to have the right resources and green capabilities, but also from gaining access to a broad base of external resources. To fully capture this complexity, the research integrates the Resource-Based View of the Firm (Wernerfelt, 1984; Barney, 1991; Amit, Schoemaker, 1993), Dynamic Capabilities Theory (Teece et al., 1997; Eisenhardt, Martin, 2000) and Resource Dependency Theory (Pfeffer, Salancik, 1978) as complementary theoretical frameworks. RBV emphasizes the crucial role of resources (and their configuration) possessed by a company in conducting effective environmental activities. DCT extends this perspective by explaining how companies adapt to changes in their environment through green capabilities, thereby reconfiguring their resources. Finally, RDT provides insight into how SMEs establish external linkages to secure the necessary support and access the critical resources required to engage in environmental practices. This logic is based on the latest literature, particularly on studies that have adopted a similar integrative approach, with specific reference to the implementation of artificial intelligence (Arroyabe et al., 2024) or the achievement of green growth (Putri et al., 2025). Below, each of the three theoretical perspectives is developed, and the interrelationships between them are described to obtain a holistic understanding of the predictors of green practices by SMEs.

The sources of competitive advantage for SMEs can be considered in the context of the strategic activities they undertake. They therefore may be: (1) external, relating to the specific characteristics of the company's environment (as emphasized by the authors of classic concepts

of competitive advantage) and (2) internal, relating to the resources, skills and competencies owned by the company (as emphasized by the authors of the new concepts of competitiveness). One of the most well-known classic concepts of competitive advantage is Porter's framework (2006), who considered it in the context of two types of strategies, i.e., differentiation strategy (e.g., based on brand, quality, manufacturing technology, or distinctive design and product features) and cost leadership strategy (referring to a leading position in the sector in terms of low total costs, most often due to production standardization). Among the new concepts of competitive advantage, the most attention in the literature has been devoted to the resource-based concept, referring to RBV (Wernerfelt, 1984; Barney, 1991; Amit, Schoemaker, 1993), according to which it is not market conditions but the company's internal resources (and their utilization) that constitute the basis for achieving and maintaining competitive advantage over a relatively long period. The resource-based concept views SMEs as sets of diverse resources that distinguish them from their competitors, while assuming that these resources are unevenly distributed among competing companies (Albino et al., 2012). According to the logic of RBV, resources should be valuable, rare, imperfectly imitable, and non-substitutable (Barney's VRIO Framework), as well as durable and not easily traded (Barney, 1991; Amit, Schoemaker, 1993).

The importance of resources for companies' environmental practices has a solid theoretical and empirical basis. First and foremost, they are described in the literature – in the most general terms – in two dimensions, as material resources, which primarily include financial assets, and intangible resources, which include human resources and, subsequently, organizational know-how, organizational culture, and reputation (Dangelico et al., 2013; del Río et al., 2016). In defining resources, Barney and Arikan (2001, p. 138) indicate that they are 'tangible and intangible assets firms use to conceive of and implement their strategies'. Regarding financial resources, Segarra-Oña et al. (2011) state that the total expenditure incurred by companies on the acquisition of new technologies determines the eco-innovative orientation of these companies. Concerning human resources, Horbach (2008) argues that improving knowledge capital (measured by the number of highly skilled employees) accelerates the development of green products. Similarly, Triguero et al. (2013) show that qualified managers and technical knowledge from external sources increase the possibility of offering such solutions. In turn, studies conducted among Italian (Mazzanti, Zoboli, 2006) and German (Horbach et al., 2012) entrepreneurs indicate the key importance of conducting research and development activities (due to financial, human, and material resources) for generating eco-innovations. Given the above, it can be assumed that the SMEs' resources (financial and human) will strengthen their potential to offer green products or services. Based on this assumption, the following research hypotheses were developed:

H1a: Financial resources positively impact a company's engagement in green activities, such as offering green products or services.

H1b: Human resources positively impact a company's engagement in green activities, such as offering green products or services.

An extension of RBV is Dynamic Capabilities Theory, which posits that gaining a competitive advantage (through environmental activities) depends not only on the resources held by companies but also on their reconfiguration in response to dynamically changing environmental conditions (Haug et al., 2025; Putri et al., 2025). The literature emphasizes that dynamic capabilities are a subset of a broader construct, organizational capabilities, defined by Helfat and Peterf (2003) as the ability to perform a coordinated set of tasks, based on existing organizational resources, in order to achieve specific results. In their groundbreaking article, Teece et al. (1997, p. 516) defined dynamic capabilities as 'the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments'. Following this logic, some researchers refer to them in terms of skills or abilities, as represented, for example, by the definitions of Zahra et al. (2006) and Helfat et al. (2007), who emphasize that dynamic capabilities not only change the resource base of companies, but must also be embedded in them and, by their very nature, be repeatable. In contrast, Eisenhardt and Martin (2000) frame dynamic capabilities as specific and identifiable strategic and organizational processes, whereas Zollo and Winter (2002) define them in the context of organizational routines, referring directly to the evolutionary perspective on change described by Nelson and Winter (1982). Finally, alternative definitions of dynamic capabilities characterize them much more broadly as an orientation (Wang, Ahmed, 2007) or potential (Barreto, 2010) of an organization, i.e., an aggregated multidimensional construct consisting of interrelated components (capabilities).

Referring to DCT on companies' environmental activities, the concept of Green Dynamic Capabilities (GDC) has been developed in the literature. Based on Teece et al. (1997), Chen and Chang (2013:112) proposed a widely cited definition of GDC as 'the ability of a company to exploit its existing resources and knowledge to renew and develop its green organizational capabilities to react to the dynamic market'. Aragón-Correa and Sharma (2003) convincingly argue that a proactive environmental strategy is a company's dynamic capability. It can take various forms, manifesting in specific actions taken by SMEs, such as saving water, energy, and materials, switching to more environmentally friendly suppliers, utilizing recycling processes, or designing products that are easier to maintain, repair, or reuse. These actions are not only concrete and identifiable processes (Eisenhardt, Martin, 2000), but also require commitment, cooperation, and integration of employee knowledge and skills (Dangelico et al., 2017), reconfiguration of resources (Zhou et al., 2019), and their alignment with opportunity lines (Liao et al., 2009). Recent empirical research confirms the strategic role of GDC in companies' sustainable actions and their competitive advantage (Zhang et al., 2020; Liboni et al., 2023). Concerning SMEs, Singh et al. (2021) empirically verify that green dynamic capability influences green innovation, thus concluding that green products and processes depend on strong GDC. These capabilities are particularly significant for SMEs operating under resource constraints yet striving to achieve sustainable development goals (Putri et al., 2025). Based on the above, the following research hypothesis was developed:

H2: Green capabilities positively impact a company's engagement in green activities, such as offering green products or services.

Contrary to RBV and DCT, Resource Dependency Theory focuses on a company's ability to establish relationships in order to obtain the necessary support and access to critical external resources (Hessels, Terjesen, 2010). Pfeffer and Salancik (1978), the founders of RDT, emphasize the phenomenon of resource interdependence, noting that internal resource shortages compel companies to establish relationships with their external environment. The fundamental assumption of RDT is that companies aim to reduce uncertainty and increase control over key resources by establishing relationships with external entities such as suppliers, customers, and regulatory authorities (Arroyabe et al., 2024).

Applying RDT to companies' environmental activities, researchers assume that the generation and implementation of eco-innovations result not only from the strategic internal resources, but also from building relationships with customers and suppliers (Melander, 2018), competitors (Horbach, 2016), and R&D units, institutes, and universities (Triguero et al., 2013). Establishing such relationships in the context of offering green products or services is one of the factors that determines effectiveness and competitive advantage (Doran, Ryan, 2016; Rabadán et al., 2020). In addition, building such relationships facilitates the accumulation of various resources (tangible and intangible) and provides an opportunity to achieve benefits related to the so-called complementarity effect in the context of knowledge sharing (Pichlak, Bratnicki, 2011). It is worth noting that RDT has also been examined in small and medium-sized enterprises. Researchers have linked it not only to RBV (Hessels, Parker, 2013) but also to Open Innovation Theory (Mei et al., 2019) and Institutional Theory (Hessels, Terjesen, 2010). Considering the importance of external resources, it can be assumed that the actions taken by SMEs regarding green products or services will extend beyond their organizational boundaries and be embedded in their relationships with external entities. Based on this assumption, the following research hypothesis was developed:

H3: Environmental support positively impacts a company's engagement in green activities, such as offering green products or services.

3. Methods

3.1. Sample and data collection

To empirically test the developed research hypotheses, data from the Flash Eurobarometer FL549 survey conducted by Ipsos European Public Affairs on behalf of the European Commission (European data, 2024) was used. This survey, entitled 'SMEs, resource efficiency and green markets', was carried out in June 2024, and its results (published in October 2024)

are an essential source of knowledge for the EC in supporting SMEs in their transition to greener solutions and increasing their long-term competitiveness. Flash Eurobarometer, as indicated by Arroyabe et al. (2024), is a recognized research tool that provides statistically representative data on the companies in the 27 EU Member States, as well as in other countries, including Albania, Iceland, the Former Yugoslav Republic of Macedonia, Moldova, Montenegro, Norway, Serbia, Switzerland, Turkey, the United Kingdom, and the USA. The scope of the Flash Eurobarometer encompasses companies employing at least one person, operating in various sectors of the economy, including mining, construction, transport, IT and communications, trade, tourism, services, and many others, as classified by NACE codes. The sample was stratified, allowing for the capture of the diverse business landscape in each EU country. The data was collected using computer-assisted telephone interviews (CATI) conducted in the respondents' national languages.

Table 1.
Descriptive characteristics of the sample (n = 573)

Country	N	How many employees does your company currently have?			Country	N	How many employees does your company currently have?		
		Min	Max	Av			Min	Max	Av
AT – Austria	42	10	230	72	**IE** – Ireland	11	20	160	61
BE – Belgium	42	10	169	49	**IT** – Italy	11	15	196	63
BG – Bulgaria	12	10	200	65	**LT** – Lithuania	25	10	200	63
CY – Cyprus	3	11	55	28	**LU** – Luxembourg	4	29	95	50
CZ – Czech Republic	23	10	180	53	**LV** – Latvia	11	12	100	51
DE – Germany	32	10	200	55	**MT** – Malta	5	20	80	50
DK – Denmark	27	10	250	86	**NL** – The Netherlands	18	10	210	59
EE – Estonia	9	10	104	40	**PL** – Poland	8	12	169	62
ES – Spain	44	10	250	58	**PT** – Portugal	3	25	186	82
FI – Finland	40	11	250	66	**RO** – Romania	10	10	60	25
FR – France	36	12	250	61	**SE** – Sweden	54	10	215	59
GR – Greece	32	10	235	57	**SI** – Slovenia	30	11	160	56
HR – Croatia	14	14	241	51	**SK** – Slovakia	11	11	90	31
HU – Hungary	16	10	80	30					

Source: own elaboration.

As the Flash Eurobarometer survey covered firms of different sizes operating in various economic conditions, the initial sample comprised 18 159 observations. In this study, the geographical scope of the database used was limited to the 27 EU countries (14 048 observations). Next, micro-firms (employing between 1 and 9 employees) and large companies with more than 250 employees were excluded, as were responses that were missing in this regard. This methodological decision resulted in a further reduction of the research sample to 7108 observations. After removing incomplete questionnaires (those with missing responses to statements describing the constructs used in this study), a statistically representative sample of SMEs of various sizes and sectors was obtained, comprising 573 entities. Among the companies included in the sample, 58% are small organizations with fewer than 50 employees, and 42% are medium-sized companies with up to 250 employees (the average size of companies

in the sample is 58 employees). The descriptive characteristics of the research sample are presented in Table 1. According to the data, the most numerous geographical groups among the surveyed firms were those from Sweden (54), Spain (44), Austria (42), and Belgium (42). At the same time, companies from the least represented countries – Cyprus, Portugal, Luxembourg, and Malta – accounted for slightly over 2.6% of the total SME population.

3.2. Measures

Based on the logic of the Resource-Based View of the Firm, Dynamic Capabilities Theory, and Resource Dependency Theory, the study considered independent variables related to the companies' internal resources (financial and human), their green capabilities, and environmental support.

The measurement of resource variables was based on the statement included in the Flash Eurobarometer questionnaire: 'What type of support does your company rely on for the production of its green products or services?' The response options include: (1) its own financial resources; (2) its own technical expertise, and (3) external support. Another construct included in the study is green capabilities, which were operationalized using a multi-item scale, based on the assumption that SMEs' actions to increase resource efficiency endow the company with such capabilities. The Flash Eurobarometer questionnaire includes the statement: 'What actions is your company undertaking to be more resource efficient?' The available response options are: (A) saving water; (B) saving energy; (C) using predominantly renewable energy (e.g. including own production through solar panels, etc.); (D) saving materials; (E) switching to greener suppliers of materials; (F) minimizing waste; (G) selling your residues and waste to another company; (H) recycling, by reusing material or waste within the company; and (I) designing products that are easier to maintain, repair, or reuse. Finally, the measurement of the variable relating to environmental support was again based on a multi-element scale, grounded in the following statement from the Flash Eurobarometer questionnaire: 'Which type of external support does your company get for the production of its green products or services?' In this case, the response options include: (1) public funding such as grants, guarantees or loans; (2) private funding from a bank, investment company or venture capital fund; (3) private funding from friends or relatives; (4) advice or other non-financial assistance from public administration; (5) ad-vice or other non-financial assistance from private consulting and audit companies; (6) advice or other non-financial assistance from business associations and clusters; and (7) advice or other non-financial assistance from supply chain partners. In the process of operationalizing both variables (green capabilities and environmental support), the collected responses were used to construct two new synthetic variables, i.e., cumulative indices covering nine types of green practices and seven types of external support, respectively.

To measure the dependent variable, a statement from the Flash Eurobarometer questionnaire concerning the offering of green products or services by the surveyed SMEs was used. Finally, the analysis included two control variables related to the size and age of the SMEs included in the sample.

4. Analyses and results

The first stage of the study involved a Correlation Analysis, which examined the relationships between various activities undertaken by surveyed companies to increase their resource efficiency (actions were coded according to the questionnaire described in the 'Measures' section). The calculated Pearson correlation coefficients are presented in Table 2.

Table 2.
The results of the Correlation Analysis

		A	B	C	D	E	F	G	H	I
A	r	1	.227**	.143**	.330**	.267**	.288**	.120**	.063	.221**
	Sig		<.001	<.001	<.001	<.001	<.001	.004	.131	<.001
B	r	.227**	1	.155**	.211**	.270**	.234**	.092*	.098*	.131**
	Sig	<.001		<.001	<.001	<.001	<.001	.027	.019	.002
C	r	.143**	.155**	1	.087*	.167**	.137**	.053	.040	.068
	Sig	<.001	<.001		.038	<.001	<.001	.202	.344	.102
D	4	.330**	.211**	.087*	1	.238**	.311**	.158**	.139**	.204**
	Sig	<.001	<.001	.038		<.001	<.001	<.001	<.001	<.001
E	r	.267**	.270**	.167**	.238**	1	.303**	.114**	.146**	.169**
	Sig	<.001	<.001	<.001	<.001		<.001	.006	<.001	<.001
F	r	.288**	.234**	.137**	.311**	.303**	1	.167**	.179**	.230**
	Sig	<.001	<.001	<.001	<.001	<.001		<.001	<.001	<.001
G	r	.120**	.092*	.053	.158**	.114**	.167**	1	.052	.098*
	Sig	.004	.027	.202	<.001	.006	<.001		.212	.019
H	r	.063	.098*	.040	.139**	.146**	.179**	.052	1	.117**
	Sig	.131	.019	.344	<.001	<.001	<.001	.212		.005
I	r	.221**	.131**	.068	.204**	.169**	.230**	.098*	.117**	1
	Sig	<.001	.002	.102	<.001	<.001	<.001	.019	.005	

R – Pearson Correlation. Sig – significance (2-tailed). * Correlation significant at the 0.05 level. ** Correlation significant at the 0.01 level. (A) saving water; (B) saving energy; (C) using predominantly renewable energy (e.g. including own production through solar panels, etc.); (D) saving materials; (E) switching to greener suppliers of materials; (F) minimizing waste; (G) selling your residues and waste to another company; (H) recycling, by reusing material or waste within the company and (I) designing products that are easier to maintain, repair or reuse. The calculations were performed using SPSS software.

Source: own elaboration.

According to the analysis, the highest interdependence was observed for measures related to saving materials and water (r = 0.33) and minimizing waste (r = 0.311). Positive correlations (at a moderate level) between the above-mentioned types of environmental practices are confirmed intuitively and substantively. On the other hand, switching to greener suppliers of materials shows statistically insignificant correlations in three cases (with saving water, using

predominantly renewable energy, and selling residues and waste to another company), which indicates that these actions do not overlap.

To test the developed research hypotheses, an analysis based on Multiple Regression Models was conducted, for which the green products or services offered by the surveyed companies were considered as the dependent variable. The regression models (including independent variables, dependent variable, control variables, and model fitting parameters to empirical data) are presented in Table 3.

Table 3.
The results of the Multiple Regression Analysis

		Green products or services						VIF
		Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**	
Control variables	Org. age	0.088**	0.077*	0.016*	0.086**	0.015*	0.014*	1.025
	Org. size	0.126**	0.099**	0.044**	0.102**	0.048*	0.049**	1.043
Financial resources			0.143**			0.014*	0.018*	1.395
Human resources			0.117*			0.034*	0.033*	1.393
Green capabilities				0.852***		0.857***	0.863***	1.197
Environmental support					0.256**		-0.023	1.175
R		0.161	0.275	0.859	0.301	0.860	0.860	
R Square		0.026	0.076	0.738	0.91	0.740	0.740	
Adjusted R Square		0.023	0.069	0.737	0.086	0.737	0.737	
Std. Error of the Estimate		0.65471	0.63887	0.33958	0.63313	0.33963	0.33962	
F		7.624	11.658	535.493	18.941	321.572	268.152	

The estimation of the parameters for adjusting moderation models to empirical data is based on the use of the least squares' method. * $p < 0.1$ ** $p < 0.05$ *** $p < 0.001$. The calculations were performed using SPSS software.

Source: own elaboration.

As shown in Table 3, the study's results confirm hypotheses H1a and H1b, which suggest that the company's internal resources positively influence its decision to engage in green activities, when offering green products or services. In Model 5, the results obtained indicate statistically significant positive relationships for the variable operationalizing financial resources ($\beta = 0.014$; $p < 0.1$) and the variable representing human resources ($\beta = 0.034$; $p < 0.1$). The results suggest that both types of resources have a positive impact on the dependent variable, which confirms the importance of financial and human capital for SMEs offering green products or services. The results of the regression analysis (Model 5) also indicate that the relationship between green capabilities and offering green products or services is statistically significant at a probability level of $p < 0.001$ ($\beta = 0.857$), which provides a basis for confirming hypothesis H2.

However, regarding the variable representing environmental support, the analysis results are ambiguous. Model 4 indicates a statistically significant positive impact of environmental support on the offering of green products or services by surveyed companies ($\beta = 0.256$; $p < 0.05$) when this variable is considered independently. At the same time, when other independent variables are included, the impact of the 'environmental support' variable becomes statistically insignificant (Model 6). Therefore, the results of the regression analysis do not pro-

vide unambiguous confirmation of hypothesis H3, which states that environmental support positively impacts a company's engagement in green activities, such as offering green products or services.

Finally, concerning control variables, the results of the analysis indicate that both the age of the company and its size have a positive (and significant) impact on the offering of green products or services by SMEs. This means that older and larger companies are statistically more likely to engage in such environmental activities.

It is necessary to deepen the analysis by checking the collinearity between the independent variables using the Variance Inflation Factor (VIF). The existence of collinearity leads to interpretative limitations of the statistical model, resulting from the difficulty in clearly determining the nature of the relationship between the explanatory and dependent variables. According to Daoud (2017), a VIF value between 1 and 5 indicates moderate and acceptable collinearity between variables, while a VIF < 1 indicates no collinearity between independent variables. Regarding the analysis, all calculated VIF values were close to 1, indicating no strong correlation between the independent variables considered.

5. Discussion

The issue of ecological aspects of production (service) activities carried out by SMEs, which is addressed in this study, constitutes a significant research trend in management sciences. This is because for many modern companies, offering an increasingly wider range of ecological products or services is imperative rather than optional, due to increasingly restrictive environmental regulations, growing consumer awareness, and social pressure to reduce emissions and production waste.

The objective of the analysis was to answer the question: What factors contribute to European SMEs offering an increasingly wider range of green products or services, and how can these companies simultaneously develop internal resources, green capabilities and leverage external support to successfully undertake such activities? To confirm the research hypotheses, an empirical analysis was conducted using Flash Eurobarometer FL549 data, covering 573 SMEs operating in 27 European Union countries.

Limiting the analysis to small and medium-sized enterprises has two important implications. First, the dominant view in the literature is that larger firms, with a more extensive resource base and larger scale of operations, are more likely to offer new environmental solutions (Noci, Verganti, 2003; Kammerer, 2009; Albino et al., 2012; Kesidou, Demirel, 2012; Dahri et al., 2025; Putri et al., 2025). In addition, the relatively higher propensity of large companies to engage in eco-innovation also stems from their greater 'visibility' and stronger social pressure (Kesidou, Demirel, 2012). However, despite the unquestionable advantage of larger companies

in offering green products or services, the empirical analysis conducted in this paper indicates that SMEs are also increasingly offering green solutions, which confirms the results of some previous studies in the literature (Sáez-Martínez et al., 2015; Dangelico et al., 2017). Moreover, the creation of such solutions is becoming increasingly common among smaller organizations with fewer than 50 employees. SMEs are also characterized by a greater ability to adapt to changes in their environment, which influences their decision to engage in green activities.

Secondly, the results of statistical modeling confirm the importance of internal resources and green capabilities for SMEs offering green products or services. Concerning the impact of the environmental support, no statistically significant relationship was found. These results indicate that the success of developing green products or services is primarily a result of strengthening and combining resources with green capabilities developed within SMEs, confirming the conclusion that companies with strong GDCs are better prepared to implement sustain-able practices (Putri et al., 2025). The results also indicate the relatively minor importance of the environmental support compared to the role of the internal resources and green capabilities developed by SMEs, which (as indicated above) strengthen the potential of these companies to offer green products or services. This finding makes an important contribution to the ongoing scientific debate on the effective-ness of environmental support and, at the same time, points to the complex nature of relationships with external entities and the adoption of green practices by SMEs.

The study's results provide valuable insights for managers seeking to expand their range of green products or services. Although there is no universal recipe for success, this paper demonstrates that resources and green capabilities are positively associated with a company's engagement in green activities, particularly when offering green products or services. Thus, even from a practical perspective, the often elusive and abstract concept of dynamic capabilities can contribute to strengthening the effectiveness of companies' green activities.

The most significant limitation of the study is that the data obtained are cross-sectional. This approach (common among researchers) raises some concerns regarding the validity of causal inferences. However, as suggested by Rindfleisch et al. (2008), under certain conditions, the results of cross-sectional studies are comparable (in terms of validity) to those obtained from longitudinal studies. Although the direction of the identified relationships generally aligns with the results of other studies derived from the literature, the analyses should be further ex-tended by conducting longitudinal studies to confirm the identified relationships empirically.

6. Conclusion

In summary, the considerations presented in the paper are preliminary proposals for further research that confirm the validity of using a model that integrates the Resource-Based View of the Firm, Dynamic Capabilities Theory, and Resource Dependency Theory. In other words, this study should not be treated as exhaustive or final, especially concerning such a complex issue as analyzing predictors of companies' environmental activities. It is only a small fragment of the still-developing knowledge, and within its designed scope, it provides insight into the complex nature of environmental management at the organizational level.

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