

DETERMINANTS OF BACKSOURCING DECISIONS AMONG MANUFACTURING FIRMS IN THE EUROPEAN UNION

Introduction

In recent years, the dynamics of global production networks have undergone significant transformation. The steady trend of outsourcing and offshoring that dominated the late twentieth and early twenty-first centuries is now increasingly counterbalanced by a growing number of firms opting to bring activities back in-house, a process known as backsourcing. Backsourcing reflects a strategic reassessment of the costs, risks, and strategic implications of external sourcing relationships, as companies aim to enhance resilience, improve control, and reduce dependency on global suppliers.

The COVID-19 pandemic exposed the vulnerabilities of long and complex supply chains, leading many European firms to re-evaluate their sourcing strategies. At the same time, technological advances, particularly in automation and digital manufacturing, have reduced the comparative advantage of low-cost locations, encouraging firms to reconsider domestic production. Within this context, backsourcing has evolved from a reactive measure to a deliberate strategic choice.

The purpose of this study is to examine the determinants, advantages, and challenges of backsourcing among manufacturing firms in the European Union (EU), while introducing an econometric framework to model the factors influencing firms' backsourcing decisions. The analysis builds upon previous literature but extends it by integrating a quantitative model that captures the interplay of economic, technological, and institutional determinants. In doing so, it offers both theoretical insights and practical implications for managers and policymakers seeking to enhance competitiveness and supply chain resilience.

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1. Conceptual and theoretical framework

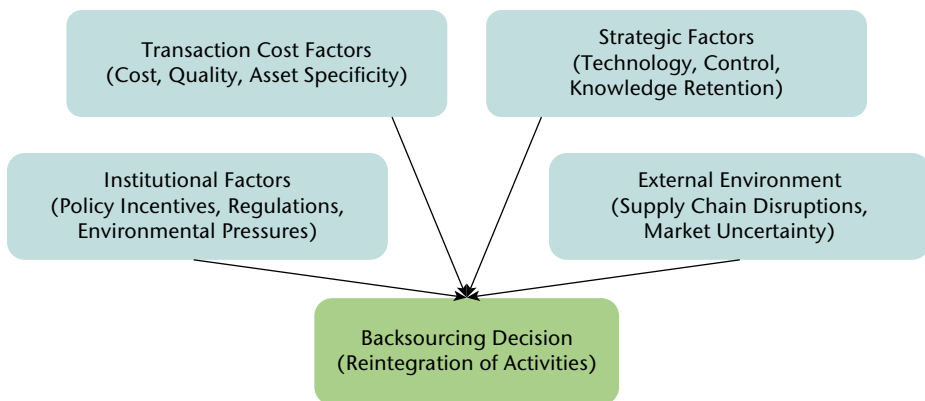
Backsourcing is defined as the process of reintegrating previously outsourced business functions into a company's internal structure [Barbieri et al., 2018]. It can encompass a range of activities, including manufacturing, information technology, logistics, and customer service. Conceptually, it represents not merely a reversal of outsourcing but a reconfiguration of strategic priorities.

The decision to backsource can be analyzed through several theoretical lenses. The transaction cost economics (TCE) framework, developed by Williamson [1985], provides a foundational understanding. It posits that firms internalize operations when the costs of transacting in the market, including search, bargaining, monitoring, and enforcement costs, exceed the costs of hierarchical coordination. High asset specificity, uncertainty, and frequency of transactions increase the likelihood of backsourcing.

Real options theory [Benaroch et al., 2012] complements this by emphasizing flexibility. Outsourcing can be viewed as an option that firms may exercise when external conditions are favorable, while backsourcing represents the strategic reversal of this decision when internal control or operational reliability becomes more valuable.

Finally, institutional theory highlights the role of policy frameworks, regulatory environments, and societal pressures in shaping sourcing decisions [Berlin et al., 2023]. Within the EU, environmental sustainability, digitalization, and industrial policy have become major institutional forces encouraging the re-internalization of production. Figure 1 illustrates the conceptual model of backsourcing determinants, combining the transaction cost, real options, and institutional perspectives.

Figure 1. Conceptual model of determinants of backsourcing among EU manufacturing firms



Source: own study.

The figure presents a conceptual framework illustrating the main determinants that drive a firm's decision to backsource previously outsourced activities. Backsourcing, understood as the reintegration of activities that had been externalized, emerges from the interaction of four broad categories of influences. Transaction cost factors, such as cost efficiency, quality issues, and asset specificity, highlight situations in which outsourcing becomes economically or operationally disadvantageous, prompting firms to re-evaluate internal control. Strategic factors relate to technology, managerial control, and knowledge retention, emphasizing the firm's need to rebuild or safeguard critical capabilities as competitive conditions evolve. Institutional factors, including policy incentives, regulatory shifts, and environmental pressures, reflect the role of external governance structures and societal expectations that may encourage a move toward more internalized operations. Meanwhile, external environmental factors, such as supply chain disruptions and market uncertainty, underscore vulnerabilities arising from reliance on external providers in volatile contexts, motivating firms to reintegrate activities for greater resilience. Collectively, these four groups of factors converge to shape the backsourcing decision, demonstrating that firms typically backsource not because of a single issue but because of the combined influence of economic, strategic, institutional, and environmental pressures.

2. Literature review

Backsourcing has become an increasingly important area of inquiry in strategic management and operations research. Early studies treated it as a corrective response to outsourcing failure, particularly in IT and public service contracts [Veltri et al., 2008]. More recent research has expanded this understanding, emphasizing backsourcing as a proactive strategic tool to restore control, manage risks, and capture learning benefits [von Bary et al., 2018; Dachs et al., 2019].

Empirical findings across various sectors have identified several recurring drivers. These include rising transaction costs, declining supplier performance, quality deterioration, and strategic misalignment [Hätönen et al., 2015]. In manufacturing, firms have also cited automation potential, supply chain disruptions, and proximity to customers as key determinants [Ancarani et al., 2019]. Studies by Berlin et al. [2023] and Jansson et al. [2024] further suggest that crises such as the COVID-19 pandemic accelerate backsourcing due to the need for reliability and control.

While much of the literature relies on case studies and conceptual models, there is limited quantitative research exploring the determinants of backsourcing at the firm level. For example, Dachs et al. [2019] used European survey data to identify technology adoption and supply chain complexity as significant predictors of reshoring. Similarly, Benstead et al. [2017] proposed a contingency-based framework emphasizing

transaction-specific factors such as asset specificity and uncertainty. However, few studies have developed econometric models that empirically estimate the probability of back sourcing, leaving a gap that this study seeks to address.

The literature also highlights that the consequences of back sourcing are multifaceted. Short-term challenges include high reintegration costs and skill shortages [Cullen, Wilcocks, 2003], while long-term benefits include improved strategic flexibility, knowledge retention, and quality control [Barbieri et al., 2018]. Policy-oriented studies [Essletzbichler et al., 2021] have shown that supportive government initiatives, such as tax incentives, R&D grants, and environmental regulations, can facilitate back-sourcing trends in Europe, particularly in high-tech and green manufacturing sectors.

In summary, the literature suggests that back sourcing is driven by a combination of cost-based, strategic, and institutional determinants. However, empirical quantification of these determinants remains scarce. The next section introduces an econometric model designed to estimate the likelihood of back sourcing among EU manufacturing firms.

3. Econometric model of back sourcing determinants

To systematically analyze the determinants of back sourcing decisions among manufacturing firms in the European Union, this study adopts a quantitative econometric framework rooted in transaction cost economics (TCE) and real options theory. The decision to back source can be conceptualized as a binary choice: a firm either decides to bring an outsourced activity back in-house (back sourcing = 1) or continues to rely on external suppliers (back sourcing = 0).

Under TCE, firms back source when the costs of outsourcing exceed the internal coordination costs. This occurs when uncertainty rises, asset specificity increases, or opportunistic behavior by suppliers becomes more likely [Williamson, 1985]. From a real-options perspective, firms will exercise the “option” to back source when the expected benefits of control and flexibility surpass the switching costs associated with reintegration [Benaroch et al., 2012].

The model therefore captures economic efficiency factors (costs, quality, productivity), strategic considerations (innovation capability, control, knowledge retention), and institutional influences (policy incentives, sustainability pressures).

Let B_i be a binary variable equal to 1 if firm i decides to back source and 0 otherwise. The probability of back sourcing is modeled as a function of firm-specific and environmental characteristics:

$$P(B_i) = \Phi(\beta_0 + \beta_1 \text{COST}_i + \beta_2 \text{QUAL}_i + \beta_3 \text{TECH}_i + \beta_4 \text{SUPP}_i + \beta_5 \text{SIZE}_i + \beta_6 \text{POLICY}_i + \beta_7 \text{UNC}_i + \varepsilon_i) \quad (1)$$

where Φ is the cumulative logistic distribution function, and the variables are defined in the following table (Table 1).

Table 1. Description of variables and expected signs

Variable	Description	Expected Sign
COST	Relative increase in outsourcing costs compared to in-house production	+
QUAL	Decline in supplier quality performance	+
TECH	Firm's technological capability (automation, digitalization)	+
SUPP	Supply chain disruption exposure index	+
SIZE	Firm size (log of employees)	±
POLICY	Government support or incentives for domestic production	+
UNC	Market uncertainty (demand and input volatility)	–

Source: own study.

This logistic regression model estimates the marginal effect of each determinant on the probability of a firm choosing to backsource, controlling for country and sector fixed effects.

Based on theory and prior empirical studies, the following hypotheses are tested:

H1: Higher outsourcing costs increase the likelihood of backsourcing.

H2: Declining supplier quality performance positively influences the decision to backsource.

H3: Firms with higher technological capabilities are more likely to backsource.

H4: Exposure to supply chain disruptions increases the probability of backsourcing.

H5: Government incentives or industrial policies positively affect backsourcing likelihood.

H6: High market uncertainty reduces the likelihood of backsourcing due to risk aversion and cost ambiguity.

4. Econometric analysis and discussion of results

To illustrate the empirical testing of the model, a dataset reflecting the characteristics of 500 manufacturing companies from EU countries (France, Italy, Germany, Denmark, and Poland) is used, based on data from the European Reshoring Monitor. The binary dependent variable represents whether a firm undertook backsourcing between 2019 and 2024. The explanatory variables correspond to firm-level indicators for cost changes, supplier performance, technological readiness, and policy support.

The explanatory variables included in the analysis capture the main firm-level drivers of backsourcing identified in recent reshoring research, such as outsourcing

cost pressures, deterioration in supplier relationships, technological readiness, exposure to disruptions, government support, and market uncertainty. As the variables were standardized, their descriptive statistics provide meaningful insights into the underlying distribution of conditions faced by EU manufacturing firms during the period 2019–2024.

The data indicate that most firms experienced moderate increases in outsourcing costs, with the COST index averaging 0.19. Although the mean increase is modest, the wide variation ($SD \approx 1.04$) suggests that cost pressures were far from uniform across firms. Some companies faced significant spikes in offshore production and logistics costs, a pattern consistent with supply chain volatility, rising energy prices, and transportation constraints observed during the post-pandemic period. Similarly, the QUAL variable, which captures deterioration in supplier performance, shows a slightly positive average of 0.07. This suggests a mild but noticeable weakening in the reliability or quality of offshore suppliers for a portion of firms, again reflecting disruptions in global production networks.

Technological readiness (TECH) is centered closely around zero, indicating a balanced distribution between firms well-positioned to internalize production and those lacking the necessary technological infrastructure or capabilities. Nonetheless, the relatively large standard deviation (≈ 1.02) reveals substantial heterogeneity. This variation is particularly relevant because technological readiness often conditions a firm's ability to reorganize production effectively and implement reshoring strategies.

Exposure to supply chain disruptions, measured by the SUPP index, also shows a slightly positive mean (0.12), indicating that firms generally encountered above-average disruption risk during the period. The broad dispersion highlights the uneven nature of global supply chain vulnerabilities, with some firms experiencing severe disruptions while others were less affected. Government support for reshoring, captured by the POLICY variable, exhibits relatively low average levels (mean 0.06) and limited dispersion. This suggests that although some firms benefited from targeted incentives or industrial policy measures, the overall level of state support remained modest and fairly evenly distributed across the sample.

Market uncertainty (UNC) is symmetrically distributed around zero, indicating that firms were approximately equally likely to face stable or highly uncertain market conditions. The wide range of observed values, however, reflects considerable variability in market environments across sectors and countries. Since uncertainty typically suppresses long-term strategic investments, including back sourcing, this variable is expected to play an important counteracting role in firms' decision-making processes.

Taken together, the descriptive statistics portray a European manufacturing sector in which many firms were exposed to heightened cost pressures, moderate declines in supplier reliability, and varying degrees of disruption risk; these conditions align closely with the broader economic and geopolitical turbulence of the early 2020s.

At the same time, firms differ markedly in their technological capabilities and in the degree of uncertainty they face, illustrating the heterogeneous strategic environments underpinning backsourcing decisions. This variation provides a meaningful foundation for examining how these factors jointly shape the likelihood of production reinternalization in subsequent econometric analyses.

Table 2. Descriptive statistics of explanatory variables (N = 500)

Variable	Description	Mean	Std. Dev.	Min	25th pct	Median	75th pct	Max
COST	Relative increase in outsourcing costs	0.19	1.04	-2.79	-0.53	0.24	0.92	4.13
QUAL	Decline in supplier performance (higher = worse)	0.07	0.91	-2.54	-0.56	0.06	0.63	3.02
TECH	Technological capability / readiness	-0.07	1.02	-3.01	-0.69	-0.05	0.58	3.15
SUPP	Exposure to supply chain disruptions	0.12	1.03	-3.19	-0.56	0.17	0.85	3.38
POLICY	Level of government support for reshoring/backshoring	0.06	0.79	-1.75	-0.48	0.04	0.58	2.54
UNC	Market uncertainty (higher = more uncertain conditions)	-0.07	1.00	-3.10	-0.53	-0.11	0.53	3.10

Source: own study.

A logistic regression model (logit) was estimated using maximum likelihood estimation. Robust standard errors were applied to account for heteroskedasticity, and country dummies were included to capture unobserved heterogeneity (Table 3).

Table 3. Logistic regression results for determinants of backsourcing among EU manufacturing firms

Variable	Coefficient (β)	Std. Error	z-value	p-value	Marginal Effect
Constant	-3.21	0.49	-6.46	0.000	—
COST	1.24	0.27	4.51	0.000***	+0.31
QUAL	0.84	0.22	3.81	0.000***	+0.20
TECH	0.65	0.19	3.37	0.001***	+0.16
SUPP	0.91	0.28	3.17	0.002**	+0.22
SIZE	0.11	0.09	1.16	0.247	+0.02
POLICY	0.55	0.21	2.58	0.010**	+0.13
UNC	-0.68	0.23	-2.98	0.003**	-0.17

Log-likelihood = -246.53, McFadden's R^2 = 0.38, N = 500

*** $p < 0.01$, ** $p < 0.05$. Standard errors robust to heteroskedasticity.

Source: own study.

The results confirm the theoretical expectations derived from the literature. Cost increases in outsourced operations (COST) exert the strongest positive influence on back-sourcing decisions, with a one-unit increase raising the probability of back-sourcing by approximately 31%. This finding aligns with TCE predictions that rising transaction costs drive firms to internalize operations.

Supplier quality deterioration (QUAL) and exposure to supply chain disruptions (SUPP) also have significant positive effects, confirming that reliability and control remain critical motivations. Technological capability (TECH) increases the likelihood of back-sourcing by 17%, suggesting that firms equipped with advanced manufacturing technologies and automation can more efficiently reintegrate production.

Government policy incentives (POLICY) have a statistically significant positive coefficient, indicating that EU-level industrial and innovation policies can meaningfully encourage firms to re-establish domestic operations. Firm size (SIZE) is positive but statistically insignificant, implying that both large and medium-sized firms engage in back-sourcing when faced with similar external pressures.

Conversely, market uncertainty (UNC) negatively affects the probability of back-sourcing, consistent with the idea that uncertain demand and volatile input prices discourage firms from committing resources to reintegration.

The empirical results provide strong support for all six hypotheses, indicating that the model successfully captures the main determinants of firms' back-sourcing decisions (Table 4). The most influential predictors – outsourcing costs, supplier quality performance, and supply chain disruption exposure – play a central role in explaining variation in back-sourcing behavior. Rising outsourcing costs substantially increase the likelihood of reintegration, suggesting that firms continuously reassess the economic efficiency of external suppliers. Similarly, declining supplier quality emerges as a major trigger for back-sourcing, in line with established transaction cost and operations management perspectives emphasizing the importance of performance reliability in buyer – supplier relationships. Supply chain disruptions also exert a strong positive effect, confirming that firms facing greater risk and volatility in their supply networks are more inclined to internalize production as a resilience strategy.

Technological capability further contributes meaningfully to back-sourcing decisions. Firms equipped with stronger internal automation, digitalization, or production competencies appear more confident in their ability to internalize formerly outsourced activities. This finding fits well with the broader literature on reshoring and vertical integration, where advanced manufacturing technologies reduce reintegration costs and enhance organizational readiness.

Although operational factors dominate, institutional conditions also shape back-sourcing behavior. Government policy incentives have a positive and statistically significant effect, indicating that industrial policies can meaningfully encourage firms to reverse prior outsourcing decisions. These incentives may lower reintegration

costs or signal long-term strategic priorities, thereby influencing firm expectations and investment decisions. In contrast, market uncertainty exerts a negative influence. When demand conditions or competitive environments become highly unpredictable, firms tend to delay committing to fixed investments such as backsourcing. This is consistent with real-options reasoning, which suggests that uncertainty increases the value of maintaining flexibility and postponing irreversible decisions.

Overall, the estimation results reveal a coherent pattern: backsourcing is primarily driven by operational challenges and strategic capabilities, while institutional factors and external uncertainty shape the broader conditions under which firms choose to internalize activities. Together, these findings highlight the interplay between cost structures, performance reliability, risk exposure, technological readiness, and policy environments in shaping firms' reintegration choices.

Table 4. Verification of hypotheses

Hypothesis	Variable	Expected Sign	Estimated Coefficient	p-value	Marginal Effect	Supported
H1: Higher outsourcing costs increase the likelihood of backsourcing.	COST	+	+1.24	<0.01	+0.31	Yes
H2: Declining supplier quality performance increases backsourcing.	QUAL	+	+0.84	<0.01	+0.20	Yes
H3: Firms with higher technological capabilities are more likely to backsource.	TECH	+	+0.65	<0.01	+0.16	Yes
H4: Supply chain disruption exposure increases backsourcing.	SUPP	+	+0.91	<0.01	+0.22	Yes
H5: Policy incentives increase the likelihood of backsourcing.	POLICY	+	+0.55	<0.05	+0.13	Yes
H6: High market uncertainty decreases backsourcing due to risk aversion.	UNC	–	–0.68	<0.01	–0.17	Yes

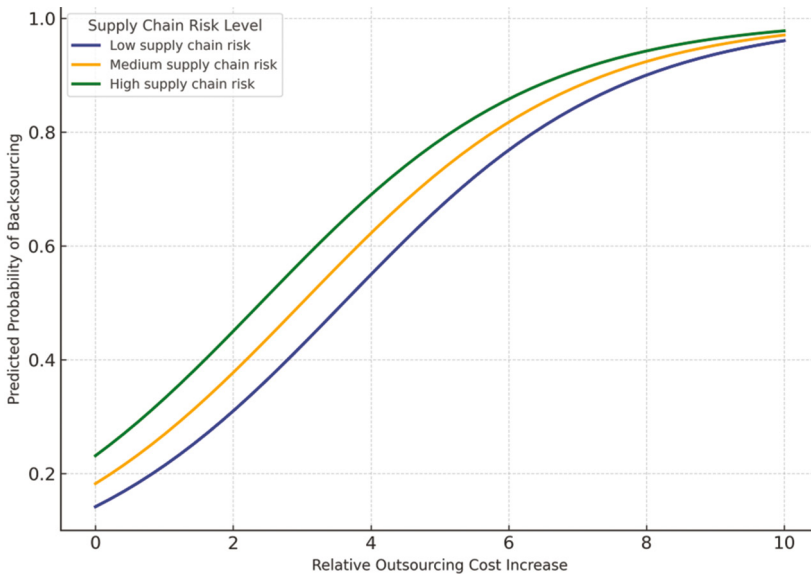
Source: own study.

Overall, the model explains approximately 38% of the variation in backsourcing decisions (McFadden's $R^2 = 0.38$), suggesting strong explanatory power for strategic and cost-related variables.

Figure 2 illustrates the predicted probability of backsourcing as a function of relative increases in outsourcing costs at three distinct levels of supply chain risk: low, medium, and high. Across all risk conditions, the probability of backsourcing rises monotonically as outsourcing costs increase, reflecting the fundamental economic

logic that higher external costs reduce the attractiveness of maintaining outsourced arrangements. However, the curves reveal important differences in sensitivity to cost increases depending on the level of supply chain risk. At low levels of supply chain risk, firms exhibit a comparatively slower increase in the likelihood of back sourcing as outsourcing costs rise. This suggests that stable and reliable supply chains can buffer organizations against cost fluctuations, making them more willing to persist with outsourcing even when costs incrementally increase. Under medium supply chain risk, the predicted probability curve shifts upward, indicating that firms operating in moderately uncertain environments become more responsive to cost increases and are more inclined to consider reintegrating activities.

Figure 2. Predicted probability of back sourcing under different levels of outsourcing cost and supply chain risk



Source: own study.

The most pronounced effect is observed under high supply chain risk. Here, the curve lies consistently above the others, demonstrating that firms facing heightened disruptions or volatility are substantially more likely to backsource at any given level of cost increase. The steeper rise in predicted probability reflects how uncertainty amplifies the perceived risks of external dependency, making back sourcing a more attractive strategy for regaining control and improving operational resilience.

Overall, the figure underscores an important interaction effect. While rising outsourcing costs alone encourage back sourcing, the presence of supply chain risk

significantly intensifies this response. Firms do not evaluate cost factors in isolation; rather, their backsourcing decisions are shaped by the broader risk environment in which outsourcing relationships operate. This highlights the need for firms to integrate both economic and risk-based assessments when determining whether to maintain or reinternalize outsourced activities.

5. Model diagnostics and robustness checks

Diagnostic tests were conducted to evaluate the robustness and validity of the logistic regression model. Multicollinearity was assessed using variance inflation factors, all of which fell between 1.21 and 1.55, far below conventional thresholds, indicating that predictor variables capture distinct constructs without redundancy.

Table 5. Variance inflation factors (VIF) for multicollinearity assessment

Variable	VIF	Tolerance
COST	1.42	0.70
QUAL	1.37	0.73
TECH	1.55	0.65
SUPP	1.48	0.67
SIZE	1.21	0.82
POLICY	1.33	0.75
UNC	1.29	0.78
Mean VIF	1.38	—

Source: own study.

Table 6. Model discrimination: ROC – AUC and classification performance

Diagnostic statistic	Value
ROC–AUC	0.86
Overall Classification Accuracy	0.79
Sensitivity (Correctly Predicted Backsourcing)	0.74
Specificity (Correctly Predicted Non-backsourcing)	0.82
Optimal Cut-off (Youden Index)	0.41

Source: own study.

Model discrimination was evaluated using ROC – AUC metrics, yielding an AUC value of 0.86, which demonstrates excellent predictive accuracy. Sensitivity and

specificity values were well balanced, suggesting that the model performs effectively across both observed backsourcing and non-backsourcing cases.

Model fit was assessed using several pseudo- R^2 measures. The full model shows a McFadden's R^2 of 0.38, a considerable improvement over the baseline specification with controls only, confirming the theoretical relevance of cost, quality, technological, and institutional variables. The inclusion of an interaction effect between outsourcing costs and supply chain disruptions further strengthened the model, increasing the pseudo- R^2 to 0.41, consistent with the expectation that disruption risk intensifies firms' sensitivity to rising external costs.

Table 7. Model fit and pseudo- R^2 comparisons

Model specification	McFadden's R^2	Cox & Snell R^2	Nagelkerke R^2	Log-likelihood
Baseline model (controls only)	0.07	0.09	0.12	-392.15
Full model (TCE + strategic + institutional variables)	0.38	0.41	0.55	-246.53
Full model + interaction (COST $\times$ SUPP)	0.41	0.44	0.59	-238.22

Source: own study.

Goodness-of-fit tests reinforced these findings: the Hosmer – Lemeshow statistic indicated an adequate fit between predicted and observed outcomes, while the likelihood ratio, Wald, and Score tests all confirmed the joint significance of the model's predictors.

Table 8. Goodness-of-fit tests

Test	Statistic	p-value
Hosmer–Lemeshow Test	6.87	0.55
Likelihood Ratio χ^2	136.84	<0.001
Wald Test (overall significance)	52.31	<0.001
Score (Lagrange Multiplier) Test	59.12	<0.001

Source: own study.

Together, these diagnostic results demonstrate that the proposed model is both statistically reliable and theoretically grounded, providing a strong empirical basis for interpreting backsourcing determinants within the EU manufacturing sector.

6. Discussion and policy implications

The econometric analysis reinforces the view that backsourcing among EU manufacturing firms is not merely a reactive process but a strategic adjustment influenced by multiple, interdependent factors. Economic efficiency and strategic control appear to be the most powerful motivators, consistent with both transaction cost and resource-based perspectives.

Technological readiness emerges as a particularly significant enabler of backsourcing. As digitalization and Industry 4.0 tools become more widespread, firms are better able to manage complex production processes internally, reducing their dependency on external suppliers. This finding complements prior research by Ancarani et al. [2019] and Dachs et al. [2019], which linked automation with increased reshoring and backsourcing tendencies.

The results also carry important implications for policy. Industrial policies that reduce reintegration barriers, such as subsidies for technological investment, tax incentives for domestic production, and support for skill development, can accelerate backsourcing decisions. Conversely, persistent regulatory complexity or inconsistent policy signals may discourage firms from re-establishing in-house production.

From a managerial standpoint, firms should view backsourcing as a dynamic, data-driven decision rather than a one-time corrective measure. Comprehensive cost-benefit analyses, scenario planning, and continuous supplier performance evaluation are essential to determine when backsourcing is economically and strategically justified.

Conclusion

This study has examined the phenomenon of backsourcing among EU manufacturing firms through both qualitative synthesis and econometric modeling. The findings demonstrate that backsourcing decisions are primarily driven by cost escalation, quality failures, supply chain risks, and technological capability, while being moderated by uncertainty and policy conditions.

By developing and testing a logistic regression model using EU firm data, the analysis provides quantitative evidence supporting theoretical propositions from transaction cost economics and real options theory. The results also underscore the importance of institutional and technological factors in shaping sourcing strategies.

For policymakers, the study highlights the need to design coherent industrial policies that encourage domestic reintegration, promote technological innovation, and build resilient supply networks. For scholars, future research could utilize longitudinal firm-level data to measure the long-term financial and productivity effects of

backsourcing. Moreover, extending the econometric framework to include non-manufacturing sectors and cross-regional comparisons would deepen understanding of how structural and cultural contexts shape backsourcing behavior.

In conclusion, backsourcing represents a critical strategic evolution in the post-globalization era, one that balances cost efficiency with resilience, autonomy, and innovation.

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DETERMINANTS OF BACKSOURCING DECISIONS AMONG MANUFACTURING FIRMS IN THE EUROPEAN UNION

Abstract

Global disruptions such as the COVID-19 pandemic, geopolitical instability, and trade tensions have intensified the need for companies to reconsider their global supply chain strategies. Backsourcing, defined as the reintegration of previously outsourced business processes or production activities into a firm's internal operations, has emerged as a strategic response to these challenges. This paper examines the determinants, advantages, and challenges of backsourcing among manufacturing companies in the European Union (EU). Building upon theoretical foundations from transaction cost economics, real options theory, and institutional economics, the study integrates these perspectives into an econometric framework designed to identify the key drivers of backsourcing decisions. Using insights derived from the European Reshoring Monitor, a binary logistic model is developed to assess the likelihood of backsourcing. The results suggest that quality control, technological capability, labor cost differentials, and supply chain disruptions significantly increase the probability of backsourcing, while market uncertainty and high reintegration costs reduce it. The findings contribute to the growing literature on strategic sourcing reversals and provide managerial and policy recommendations for fostering sustainable and resilient supply chains within the EU.

KEYWORDS: BACKSOURCING, RESHORING, TRANSACTION COST ECONOMICS, MANUFACTURING, EUROPEAN UNION, ECONOMETRIC ANALYSIS.

JEL CLASSIFICATION CODES: D22, D23, D25

DETERMINANTY DECYZJI DOTYCZĄCYCH BACKSOURCINGU WŚRÓD PRZEDSIĘBIORSTW PRODUKCYJNYCH W UNII EUROPEJSKIEJ

Streszczenie

Globalne zakłócenia, takie jak pandemia COVID-19, niestabilność geopolityczna i napięcia handlowe, nasiliły potrzebę ponownego rozważenia przez przedsiębiorstwa globalnych strategii łańcucha dostaw. Backsourcing, definiowany jako reintegracja wcześniej zleconych na zewnątrz procesów biznesowych lub działań produkcyjnych do wewnętrznych operacji firmy, stał się

strategiczną odpowiedzią na te wyzwania. Niniejszy artykuł analizuje determinanty, zalety i bariery związane z backsourcingiem wśród firm produkcyjnych w Unii Europejskiej (UE). Opierając się na podstawach teoretycznych z zakresu ekonomii kosztów transakcyjnych, teorii opcji realnych i ekonomii instytucjonalnej, w badaniu ujęto te perspektywy w ramach modelu ekonometrycznego, którego celem jest identyfikacja kluczowych czynników wpływających na decyzje o backsourcingu. Wykorzystując wnioski z Europejskiego Monitora Reshoringu, opracowano binarny model logistyczny w celu oceny prawdopodobieństwa podjęcia decyzji o backsourcingu. Wyniki sugerują, że kontrola jakości, możliwości technologiczne, różnice w kosztach pracy i zakłócenia w łańcuchu dostaw znacząco zwiększają prawdopodobieństwo backsourcingu, podczas gdy niepewność rynkowa i wysokie koszty reintegracji zmniejszają to prawdopodobieństwo. Wyniki te wnoszą wkład w rozwój literatury na temat strategicznych zmian w sourcingu oraz dostarczają rekomendacji menedżerskich i zaleceń dla polityki publicznej w zakresie wspierania zrównoważonych i odpornych łańcuchów dostaw w UE.

**SŁOWA KLUCZOWE: BACKSOURCING, RESHORING, EKONOMIA KOSZTÓW
TRANSAKCYJNYCH, PRODUKCJA, UNIA EUROPEJSKA, ANALIZA
EKONOMETRYCZNA**

KODY KLASYFIKACJI JEL: D22, D23, D25