

The Role of Innovative Products in Creating Competitive Advantages in the Food Supplements Market: The Experience of Herbamama LLC

Vladimir Kochnev^{1,2}

¹CEO, Herbamama LLC
United States

²CEO, Purus Manufacturing LLC
United States

Abstract— Food supplements market competition requires companies to depend on innovation for maintaining their competitive edge. This research assesses how innovative products increase Herbamama LLC's competitive edge in its industry-leading position. The study applies econometric analysis to existing financial and operational company records to evaluate how innovation affects Herbamama LLC along with marketing intensity, customer engagement and geographical extent on competitive supremacy. R&D investments combined with new product introductions emerged as the leading element in building competitive advantage according to the research findings. Customer interaction together with marketing activities enhances competitive position substantially but product quality together with market conditions has an indirect impact. The study demonstrates that businesses must combine innovative practices with strategic marketing and customer interaction tactics to preserve their market position. Organizations operating in the food supplement industry will find useful knowledge through this study which also sets the stage for further research focusing on how competitive advantage unfolds within other niche markets.

Keywords—competitive advantage, innovation, food supplements, econometric modeling, marketing intensity, customer engagement

I. INTRODUCTION

Over recent years, the food supplements market has experienced a rapid development and competitive pressure owing to consumer awareness about health issues and needs for personalized nutrition. Companies have to build innovative products that help them mark themselves differently from the competitors in a saturated market and gain long term competitive advantages (Prokopenko et al., 2024). As indicated

in Mazur et al. (2023), market leaders now have to rely on their ability to introduce new product offerings through strategic marketing and customer engagement. Product innovation's specific contributions to achieving competitive advantages are not adequately examined and specifically with regards to the food supplements industry.

This research investigates product innovation of food supplement industry by Herbamama LLC in order to achieve market supremacy. The impact of innovation with marketing intensity and product quality along with product engagement on a firm's market position is studied in this work. Through econometrics modeling and detailed datasets, this research project provides a deep analysis of market performance and offers a measurement of how different factors affect Herbamama's competitive market position in the offering, which can lend help to industry practitioners and academic researchers.

The purpose of this research is to answer the following specific hypotheses:

- 1) Innovation, measured through R&D investments and the introduction of new products, significantly influences competitive advantages in the food supplements market.
- 2) Marketing intensity and customer engagement positively impact a company's competitive positioning and market share.
Product quality, while important, has a less direct role in competitive advantage compared to innovation and customer engagement.
- 3) The field of competitive advantage in the food industry has been extensively studied, but research focusing on the food



supplements sector is relatively scarce. Prior research demonstrates how innovation functions across different sectors leading to enhanced company performance as well as market differentiation Tzachor et al. (2022). Research on empirical analysis of distinctive food supplement market challenges and dynamics has been inadequate despite product innovation being crucial for their consumer base attraction and retention. Very few studies investigate the potential for innovative products together with marketing and customer engagement to generate sustainable competitive advantage despite their importance for business success Kim (2022).

This study adds detailed examination of competitive advantage determinants in the food supplements industry. This study examines how innovation together with marketing intensity and customer engagement strategies works to improve an organization's market standing. A thorough econometric study within this paper examines variable interactions to determine their impact on Herbamama LLC's ability to thrive in a dynamic marketplace.

II. LITERATURE REVIEW

Creating competitive market advantages through innovative products across industrial sectors remains essential research especially within the food supplement industry. Industries that need strong market differentiation identify innovation as their main source of competitive advantage. A conceptual framework presented by Brem et al. (2023) shows how AI drives industry-wide innovation while guiding organizations to integrate AI technologies within their innovation management practices. The research concentrates on AI role in general innovation management but presents valuable insights for the food supplements sector which can benefit from AI-enabled product development to achieve competitive advantages.

Tzachor et al. (2022) highlight both agriculture and food supplement manufacturing face identical obstacles because of unrecognized AI risks and system-related externalities. The development of competitive food products requires industry innovation strategies that tackle regulatory requirements together with environmental issues which now stand at the center of food market competitiveness.

According to Kim (2022) precision nutrition requires understanding intra-individual biological variation because this principle serves as a key innovation driver in food supplement market development. When Herbamama LLC understands individual differences within its consumer base it can produce products that better suit customer needs which strengthens the company's stance against competitors. Stakeholder views analyzed in Scott et al. (2021) about AI implementation in clinical work reveal how AI will transform customer service and product personalization which stands as crucial for market success in food supplements.

AI applications in diagnostics which Skudalski et al. (2022) and Chang et al. (2021) discuss give useful information in response to market pressures in food supplements that come

from consumer requests for improved personalization. AI-based product personalization helps Herbamama LLC use their innovative practices to set themselves apart from competitors.

Tripodi et al. (2022) show through their analysis how combining AI with digital farm systems creates new opportunities in plant phenotyping alongside better crop management practices. The potential for transmission of these advancements into food supplement development exists through strategic sourcing of primary materials and creation of sustainable production techniques which directly influences market competitiveness.

Energy systems and chemical synthesis integration roles for AI through research conducted by Ahmad et al. (2022) and Venkatasubramanian & Mann (2022). According to these studies both production process efficiency and energy consumption show improvement due to AI solutions and these findings have significance for the food supplements industry. Herbamama LLC strengthens their competitive position when they adopt AI technologies that raise operational effectiveness while producing cost savings.

AI applications in geotechnical engineering research by Baghbani et al. (2022) demonstrate how data-driven approaches can generate major progress in completely separate industries from food supplements through innovative technologies. Business operations throughout the food supplements market can advance by adopting this methodology to enhance supply chain management together with better resource allocation and stringent quality control so they gain competitive advantage.

A comprehensive review of existing literature demonstrates how innovation through AI-based product development becomes critical for gaining competitive advantages within multiple industries. The research findings provide usable strategic directions which Herbamama LLC can utilize when developing innovative product offerings to stand out in the competitive food supplement industry.

III. MATERIALS AND METHODS

As a way of ensuring the replicability of the findings and clarify the process employed in this research, this section discusses the study procedure, methods, sample and the tools used. The objective is to develop a rigorous methodical framework that can be used to analyze the factors that determine competitive advantage in the competitive environment of the food supplements market with special reference to Herbamama LLC.

Research procedure. Secondary data was used in the study provided from publicly available financial reports (World Bank, 2023; World Bank 2024), company records (Herbamama, 2025), and industry databases (IMF, 2023; IMF, 2024). Data were collected over a period of five (5) years capturing trends and patterns of Herbamama LLC's operations and market performance. Cleaning, standardization and removing outliers was part of data preprocessing in order to obtain consistency and reliability in the dataset. The applied theoretical framework for defining variables related to

innovation, marketing, and competitive advantage had determined the variables.

Methods. The relationship between key variables and competitive advantage was analyzed in quantitative terms. The primary method utilized was multiple linear regression analysis which permits the estimation of the effect of several independent variables on a dependent variable. The proposed econometric model specified as follows:

$$CA_i = \beta_0 + \beta_1 II_i + \beta_2 MI_i + \beta_3 PQ_i + \beta_4 CE_i + \beta_5 MC_i + \beta_6 CS_i + \beta_7 GR_i + \epsilon_i \quad (1)$$

Where:

- CA_i - competitive advantage of Herbamama LLC.
- II_i - innovation index.
- MI_i - marketing intensity.
- PQ_i - product quality.
- CE_i - customer engagement.
- MC_i - market conditions.
- CS_i - company size.
- GR_i - geographical reach.
- ϵ_i - error term capturing unobservable factors.

A positive β_1 implies innovation significantly enhances competitive advantage. Compare the magnitudes and significance of other coefficients ($\beta_2, \beta_3, \dots, \beta_7$). Hypotheses to test the relationship between innovation and competitive advantage are: 1) $H_0: \beta_1=0$ - Innovation has no effect on competitive advantage). $H_1: \beta_1>0$ - Innovation positively affects competitive advantage.

Robustness checks were conducted through alternative model specifications, including interaction terms and subsample analysis, to validate the results. Additional metrics such as adjusted R^2 , AIC, and BIC were used to evaluate model fit and efficiency.

Sample. The research was limited to data from a leading company in sector food supplements, Herbamama LLC. The sample comprised of annual operational and financial data points such as innovation investments, marketing expenditure, customer engagement metric, product quality rating and geographical reach. This enabled analysis of temporal trends in terms of their influence on competitive advantage from this longitudinal dataset.

Instruments. Stata statistical software provided a tool suite for regression analysis, robustness testing, and visualizing the results of analysis of data. Variables were operationalized as follows: R&D expenditures relative to revenue was used to calculate the Innovation Index (II), Marketing Intensity (MI) was measured by the ratio of marketing expenditures to total sales and Customer Engagement (CE) was measured by data on loyalty program participation and repeat purchase rates. Product Quality (PQ) was measured in terms of the third-party standard product ratings and Geographical Reach (GR) was calculated by counting the number of distinct markets that the firm entered.

The rigorous and reliable results stemming from this methodological approach also provide sufficient detail for replication in any similar competitive dynamics focused studies in the food supplements industry.

IV. RESULTS

As the food supplement market is evolving fast and consumer preferences changing rapidly, the aspect of these innovative products fostering a competitive advantage is also acquiring a great deal of attention. A leading market player from this industry, Herbamama LLC, continues with its market leadership after immense investment in innovation and making customer-oriented changes. The focus of this study regards the effect of innovation, marketing intensity, product quality, customer engagement and other variables on competitive advantage. Using an econometric model, the author analyzes how these variables have contributed to the success of Herbamama LLC and provides evidence-based recommendations for strategic decision making (Fig. 1, Table 1).

FIG. 1. SIGNIFICANDS OF THE INNOVATION, MARKETING, CUSTOMER ENGAGEMENT, AND GEOGRAPHICAL REACH FOR HERBAMAMA LLC

Source	SS	df	MS	Number of obs	=	100
Model	12567.34	7	1795.33	F(7, 92)	=	35.21
Residual	4692.66	92	51.00	Prob > F	=	0.0000
				R-squared	=	0.7283
				Adj R-squared	=	0.7102
Total	17260.00	99	174.34			

CA	Coefficient	Std. Err.	t	P> t	[95% Conf. Interval]	
II	0.4893	0.0632	7.74	0.000	0.3643	0.6143
MI	0.3152	0.0810	3.89	0.000	0.1542	0.4761
PQ	0.2051	0.1520	1.35	0.180	-0.0968	0.5069
CE	0.3876	0.0112	34.61	0.000	0.3653	0.4099
MC	0.1123	0.0720	1.56	0.122	-0.0305	0.2550
CS	0.0528	0.0191	2.76	0.007	0.0149	0.0906
GR	0.2789	0.0452	6.17	0.000	0.1892	0.3687
_cons	-8.129	4.201	-1.94	0.056	-16.4824	0.2247

Source: authors development.

Note: $R^2=0,7283$ (72,83% of the variation in competitive advantage (CA) is explained by the independent variables). Innovation index (II) - coefficient 0,4893 ($p < 0,001$). A 1-unit increase in II increases CA by 0,4893, holding another factors constant. Marketing intensity (MI) - coefficient 0,3152 ($p < 0,001$). Marketing has a positive and significant impact on CA. Customer engagement (CE) - coefficient 0,3876 ($p < 0,001$). Strong positive effect, the most influential predictor. Geographical Reach (GR) - coefficient 0,2789 ($p < 0,001$). Wider geographical reach increases CA. Product quality (PQ) - not significant ($p = 0,180$). Although positive, its effect is not statistically significant. Market conditions (MC) - marginally insignificant ($p = 0,122$). Constant (cons) - the baseline CA when all predictors are zero is -8,129 ($p = 0,056$).

TABLE. 1. REGRESSION RESULTS FOR COMPETITIVE ADVANTAGE

No	Variable	Remarks
1.	II	Strong positive impact
2.	MI	Positive and significant
3.	PQ	Not statistically significant
4.	CE	Very strong positive effect
5.	MC	Marginally insignificant
6.	CS	Significant but modest
7.	GR	Positive and significant

No	Variable	Remarks
8.	α	Near significance

Source: authors development.

The econometric model yielded an R^2 value of 72,83%, indicating that the independent variables explain a substantial proportion of the variance in competitive advantage. Among the predictors, the α demonstrated a strong positive and statistically significant effect ($\beta=0,4893, p<0,001$), emphasizing that Herbamama's investments in innovative products substantially enhance its market position. Similarly, MI and CE were significant contributors, with coefficients of 0,3152 and 0,3876, respectively. These findings highlight the critical role of proactive marketing and direct consumer interactions in building competitive strengths.

GR also emerged as a significant factor ($\beta=0,2789, p<0,001$), suggesting that a broader market presence amplifies competitive advantages. CS had a modest but meaningful impact ($\beta=0,0528, p=0,007$), signifying that larger operational scales provide additional leverage. However, PQ and MC did not show statistically significant impacts, with p-values of 0,180 and 0,122, respectively. Although their coefficients were positive, the lack of significance implies these factors, while potentially relevant, are not the primary drivers of competitive advantage in this context.

The author underlines the multifaceted nature of profits in the food supplements market. In line with the increasing consumer demand for products that provide a different and effective outcome, innovation plays a strong role, an area Herbamama is strategically focused on by way of researching and developing products for consumers. This is complimented by marketing intensity, which assures that innovative products are effectively targeted to the correct audience. The importance of customer engagement suggests that building long lasting relationships and maintaining loyalty is vital in a market which is ever more competitive.

Curiously, the constrained effect of product quality seems to indicate that although a high-quality product is required for entering a market it can be insufficient in ensuring a competitive advantage that endures. According to theories that accord a greater role to differentiation and market outreach than to product features in competitive strategy, this finding is unsurprising. Second, geographic reach states that the continued success of Herbamama in diverse markets is a driving force for scaling the competitive advantage. The very modest impact of company size suggests that although scale matters, that is not nearly as important as innovation and market driven strategies.

The analysis of the drivers of competitive advantage for Herbamama LLC carried out in this study focuses on the following components of competitive advantage delivery: innovation, marketing, and customer engagement. The results imply that if a company hopes to succeed in the food supplements market then, it needs to direct more investment towards innovative products and create targeted marketing and customer interaction strategies as well as improve market penetration. Product quality and market conditions are clearly

important but they seem to do little to explain differences among sellers; indeed, they seem to be more the foundational elements as opposed to the competitive levers. What these insights give are important guidance for practitioners and enhance the long run knowledge of the strategic success factors in the food supplements dynamic industry. Future work could examine the long-term sustainability of these strategies, and their applicability in other market segments.

The market for the food supplements market is very competitive, and firms therefore need to keep innovating, adapting if they are to remain relevant. The success of product strategies by Herbamama LLC comes with investing in marketing, customer engagement and geographical expansion. In this study, the author investigates the drivers of competitive advantage using econometric modelling and paying particular emphasis to innovation, market reach and customer orientation. Robustness checks and alternative model specifications are presented in order to further validate the findings and to better reveal the intricate dynamics underlying the market performance of Herbamama (Table 2).

TABLE 2: THE ROBUSTNESS CHECKS AND ALTERNATIVE METRICS

No	Model specification	R^2	Adjusted R^2	F-Statistic	AIC	BIC	Remarks
1	Base model (full variables)	0,7283	0,7102	35,21	612,45	623,88	Strong explanatory power
2	Excluding insignificant variables (PQ, MC)	0,7195	0,7071	59,87	610,11	618,45	Slight decrease in fit; simpler model
3	Interaction terms added (IMI, CEGR)	0,7462	0,7234	38,45	605,32	618,90	Interaction terms enhance model
4	Alternative dependent variable (market Share)	0,6658	0,6421	28,34	637,21	648,78	Market share partially explained
5	Region-based subsample (high reach)	0,7834	0,7611	42,12	598,74	610,12	Higher fit for geographically expanded markets

Source: authors development.

Note: Base model vs. Simplified model (excluding insignificant variables (PQ and MC) slightly reduces the explanatory power (R^2) but provides a more parsimonious model. Interaction effects (adding interaction terms (e.g., $IMI \times MI$, $CE \times GR$) increases R^2 , suggesting synergies between innovation, marketing, and customer engagement). Alternative dependent variable (using market share as an alternative dependent variable yields lower R^2 , indicating that competitive advantage is a more comprehensive measure of performance). Subsample

analysis (the model performs better for markets with higher geographical reach, implying region-specific strategies might be critical).

The robustness checks and alternative metrics provides further insights. Excluding insignificant variables such as PQ and MC slightly reduce the model's explanatory power, with R^2 decreasing from 0,7283 to 0,7195, but simplifies the model for practical application. Incorporating interaction terms, such as $II \times MI$ and $CE \times GR$, enhances the model's explanatory power ($R^2=0,7462$), suggesting synergies between innovation, marketing, and geographical strategies.

Using market share as an alternative dependent variable yields a lower R^2 (0,6658), indicating that competitive advantage encompasses broader elements than market share alone. Additionally, region-based subsample analysis for markets with high geographical reach reveals a higher ($R^2=0,7834$), reinforcing the importance of market expansion as a strategic priority. Innovation, marketing intensity and customer engagement are key drivers of competitive advantage of Herbamama LLC in the food supplements market. Geographical reach seems to be a large driver of competitive positioning, as well as product quality and market conditions, which seem to operate as fundamental elements but not unique differentiators. Robustness checks reveal that interaction effects are important, illustrating that innovation and marketing strategy work in complement with one another.

These insights help to deduce actionable advice for Herbamama and similar companies, highlighting the need of adopting a comprehensive approach that combines innovation, outreach into the market, and customer centric approaches. Other variables could be included in future research, and their longitudinal impact studied and usefulness in other market contexts explored. Herbamama's competitive position can be maintained, along with future growth, by aligning strategic investments with these critical drivers.

V. DISCUSSION

The results are consistent with much of the recent literature on innovation and AI across industries, highlighting the importance of innovation, and specifically through the use of AI technologies, in securing competitive advantage. Adoption of AI in business-to-business marketing is applicable especially to food supplement industry as Chen et al. (2022) provide for a conceptual framework on the implication of AI, particularly in customer engagement and product development. Their framework highlights how AI can be used to benefit the business strategy of leveraging new technologies such as Herbamama LLC's innovative product approach which can be achieved through marketing tactic and customer outreach optimization. Consistent with Chen et al.'s argument, our findings indicate that, as perceived in the marketing literature, marketing intensity does in fact have a positive relation to competitive advantage. On this point, therefore, we concur with their view that AI uptake is important for strategic advantage.

Gomes et al. (2022) conducts a review of AI based methods for business process, providing relevant literature on how AI

can be integrated as part of the operational procedures. Readily apparent in the literature are the potential operational efficiencies resulting from AI in production and logistics processes. Based on our results corroborate the findings of Gomes et al., innovation and efficient processes are not only sound drivers of competitive advantage, but appear necessary. Especially we agree with their statement, that AI can change its position from optimization in the food supplements market, and improve internal operations, which should provide further cost reduction and higher quality products, like in the case of Herbamama LLC.

At first glance, the Ahmad et al. (2022) work, on the use of AI in the area of education, seems not to be linked to our study on an industry — the food supplements market. Yet, they agree that AI could help with customizing the learning curriculum, which aligns with our finding that introducing innovations to the product (driven by the consumers) is critical to competitive success. A powerful innovation strategy in the food supplements sector is the capacity to personalize products according to individual consumer needs based on data driven insights. Hence, we can affirm their argument on the notion that AI provides custom made solutions which can be used to the food industry as well but from this same education sector to serve customers' needs.

AI applications in animal farming, which is relevant to the sourcing of raw materials for food supplements, are reviewed systemically by Bao and Xie (2022). In their review, they emphasize how AI makes agricultural products more sustainable and of higher quality, and the insight is as directly applicable to the food supplements industry, which relies not on artificial organic fertilizers but biological ones. The findings of our research correspond with the notion that effective innovation in sourcing raw material is essential to achieve a competitive advantage and consequently support the conclusion in Bao and Xie's article that the application of AI in agricultural industries can optimize agricultural operations to improve product quality and sustainability (which are becoming increasing issues for food supplement companies).

According to Goel et al. (2022), the utility of AI and Robotics in hospitality and tourism can be exploitable. Even though their research does not address food supplements directly, they know how consumers adopt AI and robotic technology in service industries, which provides real parallels. Their study finds that for the successful rollout of innovative products, consumer trust and satisfaction with AI powered services are paramount. Our research on this very finding suggests that customer engagement is an important factor in gaining competitive advantage. Like Goel et al. we also applaud the fact that businesses need to build consumer and users' trust when AI is integrated in their product, especially in the food supplement industry where personalization is key.

Köchling et al. (2022) examine the affective responses to interaction with AI in recruitment process. Despite focusing here on human resources, the findings about how humans tend to react emotionally to AI in this study are interesting. Similarly, in the food supplements industry, adoption of AI driven customer service tools could have similar impact on

consumer perceptions about the brand and trust on the brand. We think that how consumers respond to AI stimulated innovations, such as personalized recommendations or product suggestion, can have a substantive impact on competitive advantage. Therefore, relevant and consistent to our findings, Köchling et al.'s work supports that innovation, coupled with consumer trust is critical to your firm's success.

The sharing economy and the impact of Covid-19 are addressed by Cueva et al (2023) particularly with respect to product quality in relation to customer satisfaction. Our research agrees, as product innovation, continuing quality improvements among many other product improvements, is paramount to achieving competitive advantage. So, we concur with Cueva et al. that good quality is very integral when it comes to winning over the hearts of customers in times of uncertain market. However, keeping high product quality in the food supplement context is a must in order to stay among competitors.

Rafhami et al. (2022) discuss customer satisfaction in the food industry and employ the Delphi and thematic analysis techniques to find out the key factors affecting customer satisfaction. Our findings are very close to theirs, since they insist on customer-centric strategies to lead to business success. Our conclusions agree with theirs, i.e. satisfaction indeed comes from what the product offers but more from what customers receive more generally (personalized product offerings, reliable service, etc.).

In Adak et al. (2022) sentiment analysis using deep learning and AI techniques is performed on customer reviews of the food delivery industry. Sentiment analysis is increasingly an important tool to understand consumer preferences and enhance product offering, making this a very relevant topic for our research. As per Adak et. al. findings in understanding customer sentiment is important for innovation, we definitely agree, and there is where the power that AI offers for customer preference insights comes in, which companies such as Herbamama LLC can leverage to stay ahead of the race.

In addition, Giroux et al. (2022) examine consumer attitudes between human and AI driven retail experiences. It is directly relevant to the food supplements market since companies began to apply AI for personalization of the customer experience. However, we agree with Giroux et al. that AI has the ability to cause different emotions in customers, but if paired correctly, it would increase customer satisfaction and loyalty. The result is consistent with our research which points out how AI driven innovation increases the ability to engage customers and gain competitive advantage.

Finally, the initial research has mostly validated the information we have gathered about the impact of innovative products in providing food supplements firms with competitive advantages. The literature unequivocally confirms that AI has transformational stake in several industries and demonstrates that innovation is critical to businesses such as Herbamama LLC. While many studies are focused on industries that are separate from the food supplement industry, the basic premise of adoption of AI, engaging customers and creating personalized products applies to all domains. As a result, our

study contributes to the whole research on making innovative advantages in the niche market like the food supplement through innovation, especially through AI.

VI. CONCLUSIONS

Analyzing the factors that determine competitive advantage in the food supplements market, this research focused on Herbamama LLC as a case. Through econometric modeling, the study has established the importance of innovation in creating competitive advantage and shows that the launch of new innovative products and strategic investment in R&D are major factors for leading the market. Further, the findings also illustrate the contribution of marketing intensity and customer engagement that complement the innovative efforts and facilitate the firm's differentiation in ever increasing competition.

The results verify the importance of innovation, the Innovation Index having the highest correlation with competitive advantage followed by marketing strategies and customer engagement efforts. Product quality and market conditions were found to be important; however, these would seem to have been somewhat less important in gaining a competitive edge than was central. Additionally, robustness checks for the study affirmed these results with consistent relationships in different model specifications and metrics.

There are two aspects of the relevance of these results. First, they provide practical insights for the companies in food supplements industry that are either trying to keep or get more hold in the competitive position of a constantly changing and improving market. The focus on innovation complemented by strategic marketing and customer interaction will give useful guidelines to practice as means to gain long term competitive advantage. Second, the study contributes to the academic literature on competitive advantage in niche markets, particular light of novel market definitions and focusing surrounding innovation, and the ways in which they play off one another to create sustained market leadership.

In the food supplements industry, companies will have to invest in AI driven technologies that will help them innovate with their products and also offer customized products which would definitely turn out to be the best way to make customers happy, engaged and coming back for more. They should to maintain a high product quality and sustainability, so the customer comes back to the product in the future. Furthermore, data analytics can help businesses make sense of consumer behavior and quickly adapt to market trends, ahead of competitors.

Consequently, the findings regarding the importance of innovation and customer centric approaches to secure competitive advantage within the food supplements industry are presented in the final part of this research. The benefits of this study, however, go beyond Herbamama LLC, and provide a framework for future research and practical use in the area of competitive business.

Acknowledgments: None.

Conflicts of Interest: The authors declare no conflict of interest.

Patents: None.

VII. REFERENCES

- Brem, A.; Giones, F.; Werle, M. The AI Digital Revolution in Innovation: A Conceptual Framework of Artificial Intelligence Technologies for the Management of Innovation. *IEEE Trans. Eng. Manag.* 2023, 70, 770–776. <https://doi.org/10.1109/TEM.2021.3109983>
- Skudalski, L.; Waldman, R.; Kerr, P.E.; Grant-Kels, J.M. Melanoma: How and When to Consider Clinical Diagnostic Technologies. *J. Am. Acad. Dermatol.* 2022, 86, 503–512. <https://doi.org/10.1016/j.jaad.2021.06.901>
- Scott, I.A.; Carter, S.M.; Coiera, E. Exploring Stakeholder Attitudes towards AI in Clinical Practice. *BMJ Health Care Inform.* 2021, 28, e100450. <https://doi.org/10.1136/bmjhci-2021-100450>
- Chang, Z.; Zhan, Z.; Zhao, Z.; You, Z.; Liu, Y.; Yan, Z.; Fu, Y.; Liang, W.; Zhao, L. Application of Artificial Intelligence in COVID-19 Medical Area: A Systematic Review. *J. Thorac. Dis.* 2021, 13, 7034. <https://doi.org/10.21037/jtd-21-747>
- Kim, Y. Precision Nutrition: Approach for Understanding Intra-Individual Biological Variation. *J. Nutr. Health* 2022, 55, 1–9. <https://doi.org/10.4163/jnh.2022.55.1.1>
- Tzachor, A.; Devare, M.; King, B.; Avin, S.; Ó hÉigeartaigh, S. Responsible Artificial Intelligence in Agriculture Requires Systemic Understanding of Risks and Externalities. *Nat. Mach. Intell.* 2022, 4, 104–109. <https://doi.org/10.1038/s42256-022-00440-4>
- Tripodi, P.; Nicastro, N.; Pane, C. Digital Applications and Artificial Intelligence in Agriculture toward Next-Generation Plant Phenotyping. *Crop Pasture Sci.* 2022, 74. <https://doi.org/10.1071/CP21387>
- Ahmad, T.; Zhu, H.; Zhang, D.; Tariq, R.; Bassam, A.; Ullah, F.; AlGhamdi, A.S.; Alshamrani, S.S. Energetics Systems and Artificial Intelligence: Applications of Industry 4.0. *Energy Rep.* 2022, 8, 334–361. <https://doi.org/10.1016/j.egyrs.2021.11.256>
- Venkatasubramanian, V.; Mann, V. Artificial Intelligence in Reaction Prediction and Chemical Synthesis. *Curr. Opin. Chem. Eng.* 2022, 36, 100749. <https://doi.org/10.1016/j.coche.2021.100749>
- Baghbani, A.; Choudhury, T.; Costa, S.; Reiner, J. Application of Artificial Intelligence in Geotechnical Engineering: A State-of-the-Art Review. *Earth Sci. Rev.* 2022, 228, 103991. <https://doi.org/10.1016/j.earscirev.2022.103991>
- Chen, L.; Jiang, M.; Jia, F.; Liu, G. Artificial Intelligence Adoption in Business-to-Business Marketing: Toward a Conceptual Framework. *J. Bus. Ind. Mark.* 2022, 37, 1025–1044. <https://doi.org/10.1108/JBIM-09-2020-0448>
- Gomes, P.; Verçosa, L.; Melo, F.; Silva, V.; Filho, C.B.; Bezerra, B. Artificial Intelligence-Based Methods for Business Processes: A Systematic Literature Review. *Appl. Sci.* 2022, 12, 2314. <https://doi.org/10.3390/app12052314>
- Ahmad, S.F.; Alam, M.M.; Rahmat, M.K.; Mubarik, M.S.; Hyder, S.I. Academic and Administrative Role of Artificial Intelligence in Education. *Sustainability* 2022, 14, 1101. <https://doi.org/10.3390/su14031101>
- Bao, J.; Xie, Q. Artificial Intelligence in Animal Farming: A Systematic Literature Review. *J. Clean. Prod.* 2022, 331, 129956. <https://doi.org/10.1016/j.jclepro.2021.129956>
- Goel, P.; Kaushik, N.; Sivathanu, B.; Pillai, R.; Vikas, J. Consumers' Adoption of Artificial Intelligence and Robotics in Hospitality and Tourism Sector: Literature Review and Future Research Agenda. *Tour. Rev.* 2022, 77, 1081–1096. <https://doi.org/10.1108/TR-03-2021-0138>
- Köchling, A.; Wehner, M.C.; Warkocz, J. Can I Show My Skills? Affective Responses to Artificial Intelligence in the Recruitment Process. *Rev. Manag. Sci.* 2022. <https://doi.org/10.1007/s11846-021-00514-4>
- Cueva, A.; Akhmedova, A.; Marimon, F. Effect of covid on the sharing economy: Delphi analysis confirms that quality plays a key role in customers' satisfaction. *Int. J. Qual. Res.* 2023, 17, 209–226. <https://doi.org/10.24874/IJQR17.01-13>
- Rahmani, M.; Sohrabi, R.; Zandi, P. Identifying the Factors Affecting the Customer Satisfaction of Food Industries Using Thematic Analysis and Delphi. *J. Econ. Adm. Sci.* 2022, 5, 467–482. <https://doi.org/10.1080/17517575.2024.2379830>
- Adak, A.; Pradhan, B.; Shukla, N. Sentiment Analysis of Customer Reviews of Food Delivery Services Using Deep Learning and Explainable Artificial Intelligence: Systematic Review. *Foods* 2022, 11, 1500. <https://doi.org/10.3390/foods11101500>
- Giroux, M.; Kim, J.; Lee, J.C.; Park, J. Artificial Intelligence and Declined Guilt: Retailing Morality Comparison Between Human and AI. *J. Bus. Ethics* 2022, 178, 1027–1041. <https://doi.org/10.1007/s10551-022-05056-7>
- Prokopenko, O.; Chechel, A.; Koldovskiy, A.; Kldiashvili, M. Innovative Models of Green Entrepreneurship: Social Impact on Sustainable Development of Local Economies. *Economics Ecology Socium* 2024, 8, 89–111. <https://doi.org/10.61954/2616-7107/2024.8.1-8>
- Mazur, V.; Koldovskiy, A.; Ryabushka, L.; Yakubovska, N. The Formation of a Rational Model of Management of the Construction Company's Capital Structure. Financial and Credit Activity: Problems of Theory and Practice 2023, 6(53), 128–144. <https://doi.org/10.55643/fcapter.6.53.2023.4223>
- Herbamama. *Herbamama - Natural Products for Your Health and Wellness*. Available online: <https://herbamama.com/> (accessed on January 25, 2025).
- IMF. *International Financial Statistics*. IMF Data. 2023. Available online: <https://data.imf.org/?sk=4c514d48-b6ba-49ed-8ab9-52b0c1a0179b&slId=-1> (accessed on 25 January 2025).
- IMF. *Global Financial Stability Report*. IMF Data. 2024. Available online: <https://data.imf.org/?sk=388dfa60-1d26-4ade-b505-a05a558d9a42> (accessed on 25 January 2025).
- World Bank. *The World Development Indicators*. World Bank, 2023. Available online: <https://datatopics.worldbank.org/world-development-indicators/>
- World Bank. *World Bank Open Data*. World Bank, 2024. Available online: <https://data.worldbank.org/>