Open Science
BRAZIL

DOI: https://doi.org/10.37497/opsbrazil.50

PREPRINT

FROM LOCAL AUTHORITY TO GLOBAL DEMAND: AI-POWERED LOCALIZATION STRATEGIES AND CONVERSION FUNNELS IN THE INTERNATIONALIZATION OF DIGITAL PRODUCTS

Da autoridade local à demanda global: estratégias de localização com inteligência artificial e funis de conversão na internacionalização de produtos digitais

RODRIGO FERNANDEZ DE ALMEIDA
Institutional affiliation: Pixel N Rock LLC, Orlando, Florida, USA
Email: rodrigo@pixelnrock.com

ABSTRACT | Objective: To examine how digital customer acquisition strategies, solution-oriented positioning, and artificial intelligence (AI)-assisted linguistic localization were combined in the internationalization of a Brazilian digital educational product. **Method:** An exploratory and descriptive single-case study based on triangulation of Hotmart transaction records, Meta Ads advertising data, Utmify UTM attribution, dated production files, and the strategist's account. The historical series encompasses 30,863 transactions from January 2023 to October 2026. The main analytical period, from January 1, 2025, to October 22, 2026, comprises 20,911 transactions, including 3,673 purchases by customers outside Brazil across 132 countries and territories. **Results:** Average monthly international sales were 49 before targeted initiatives and 53 during the Spanish-language advertising phase with automatic subtitling; they increased to 78 during the phase involving AI-translated Spanish-language content and reached 181 during the phase combining an English-language product, voice cloning, AI-translated videos, and campaigns targeting cold audiences. **Conclusion:** The case illustrates the coordination of technological localization, offer development, and international customer acquisition, without permitting the growth to be causally attributed to AI alone.

Keywords | Digital Internationalization; Artificial Intelligence; Linguistic Localization; Conversion Funnels; Digital Marketing; Case Study.

Submetido: 04-11-2026
Postado: 04-11-2026
e-ISSN: 2764-9822

Endereço de correspondência:
Rodrigo Fernandez de Almeida –
E-mail: rodrigo@pixelnrock.com

CC BY

RESUMO | Objetivo: Examinar como estratégias de aquisição digital, posicionamento orientado à solução e localização linguística apoiada por inteligência artificial (IA) se articularam no processo de internacionalização de um produto educacional digital brasileiro. **Método:** Estudo de caso único, exploratório e descritivo, baseado na triangulação de registros transacionais da Hotmart, dados publicitários do Meta Ads, atribuição por UTM da Utmify, arquivos de produção datados e relato do estrategista. A série histórica abrange 30.863 transações entre janeiro de 2023 e outubro de 2026. Na janela principal, de 1º de janeiro de 2025 a 22 de outubro de 2026, foram analisadas 20.911 transações, das quais 3.673 envolveram compradores fora do Brasil, distribuídos por 132 países e territórios. **Resultados:** A média mensal de vendas internacionais foi de 49 antes de ações dirigidas e de 53 na fase de anúncios em espanhol com legendagem automática, passou a 78 na fase de conteúdos em espanhol traduzidos por IA e chegou a 181 na fase que combinou produto em inglês, voz clonada, vídeos traduzidos por IA e campanhas para públicos frios. **Conclusão:** O caso ilustra a coordenação entre localização tecnológica, construção de ofertas e aquisição de públicos internacionais, sem permitir atribuir causalmente o crescimento à IA de maneira isolada.

Palavras-chave | Internacionalização digital; Inteligência artificial; Localização linguística; Funis de conversão; Marketing digital.

1. INTRODUCTION

The distribution of digital educational products enables businesses and professionals to reach consumers beyond their domestic markets. However, the technical availability of an offering in another country does not, by itself, establish the ability to generate trust, communicate benefits, or convert interest into purchases. International market entry entails learning about markets, adapting the value proposition, and developing customer acquisition mechanisms for audiences unfamiliar with the producer.

Internationalization research emphasizes the importance of learning, networks, and the challenges of entering foreign markets (Johanson & Vahlne, 2009). Applying this discussion to digital environments requires attention to the technological conditions and organizational decisions that enable cross-border operations (Coviello et al., 2017). Recent AI tools provide voice synthesis, translation, and audiovisual production capabilities, but their presence in an operation does not, in isolation, constitute evidence of commercial effectiveness.

This article examines the internationalization of pastry chef Áureo Magalhães's educational products using records compiled by strategist Rodrigo Fernandez de Almeida. The guiding research question is: How were communication repositioning for audiences unfamiliar with the specialist, digital acquisition architecture, and AI-assisted localization combined during international expansion? The objective is to reconstruct this process and describe the observable outcomes while explicitly acknowledging interpretive limitations.

2. THEORETICAL FRAMEWORK

2.1 Internationalization, learning, and digital markets

The updated Uppsala model also emphasizes relationship networks and the behavioral foundations of expansion decisions (Vahlne & Johanson, 2020). This perspective provides a

lens through which to interpret the transition from spontaneous foreign demand to planned international operations, without assuming that a single business trajectory validates the model.

The revisited Uppsala model links internationalization to learning and to the difficulties arising from an organization's position within relevant networks (Johanson & Vahlne, 2009). For digital offerings, distribution infrastructure may reduce operational barriers but does not eliminate uncertainty regarding preferences, language, credibility, and purchasing behavior. Coviello, Kano, and Liesch (2017) discuss the need to account for context and organizational mechanisms when applying internationalization models.

2.2 Localization, AI, and value communication

Recent literature distinguishes mere digital connectivity from AI-mediated opportunities to learn about consumers in foreign markets. dos Santos and Williamson (2024) discuss how digital interactions and information about preferences may support the international adaptation of digital firms. The present case, however, primarily documents translation, dubbing, and communication adaptation; it does not examine proprietary recommendation systems or automated individual-level personalization.

In this study, localization is operationally defined as adapting commercial and educational materials for audiences speaking other languages, including subtitles, audio, and video. AI is examined as a production and adaptation resource rather than as an isolated experimental variable. Solution-oriented positioning shifts the emphasis from the specialist's pre-existing reputation alone toward benefits understandable to consumers unfamiliar with that specialist. This interpretation is assessed against the advertisements actually documented, including those that retained a personal-authority narrative.

3. METHODOLOGY

3.1 Study design and sources

An exploratory and descriptive single-case study was conducted using triangulation of quantitative and qualitative evidence. The corpus comprises Hotmart transaction exports generated on October 26, 2026; Meta Ads campaign and advertisement records; Utmify UTM-based sales attribution; dated production receipts and files; and the account of the strategist responsible for positioning decisions. The historical reconstruction covers January 1, 2023, through October 22, 2026, and includes 30,863 eligible transactions. The main analytical period extends from January 1, 2025, to October 22, 2026, and contains 20,911 transactions.

Transactions with a status of Completed or Approved were included, while refunds were excluded. The 2025 dataset was assembled from the complete report for the co-producer's account, supplemented by five sales identified only in the producer's international-product export; the other years were derived from complete reports from the producer's account. Source files have SHA-256 integrity records in the documentary appendix. Buyers were

represented by pseudonymized identifiers, without disclosing names, telephone numbers, or email addresses.

3.2 Operational definitions and analytical subsets

Subset A includes purchases of any product by consumers whose recorded country differs from Brazil. Subset B includes purchases of the 14 English- or Spanish-language products, regardless of the buyer's country. These subsets are not additive: they share 3,173 transactions. The former additionally includes 500 purchases of Portuguese-language products by buyers outside Brazil, whereas the latter includes 18 purchases of localized products by buyers in Brazil. Unique buyers were identified within each subset and time window using documented email, telephone, or name-matching criteria before pseudonymization.

Meta Ads metrics represent advertising attribution within that platform, whereas Utmify data identify orders tracked through UTM parameters. Because of differences in attribution windows, rules, and methods, these measures are reported separately and are not summed. Gross revenue, net revenue, and amounts denominated in different currencies were likewise not aggregated. Temporal phases were defined using dated records, without assuming equivalence between phases or control over competing factors.

3.3 Analytical strategy and limitations

The analysis combined descriptive statistics on transactions, buyers, and countries with a documentary chronology of campaigns and tools. Comparisons across phases use approximate monthly averages but do not constitute a before-and-after experiment: each transition involved simultaneous changes in products, audiences, offers, investments, and technology. Independent causal effects of AI were not estimated, nor were significance tests performed on between-phase differences. The strategist's retrospective account was distinguished from contemporaneous records wherever necessary.

4. RESULTS

4.1 Reach and sales composition

Between January 2025 and October 22, 2026, the operation recorded 3,673 sales to buyers outside Brazil, accounting for 17.56% of the 20,911 eligible transactions, with 3,067 distinct buyers across 132 countries and territories. There were 2,207 international sales in 2025 and 1,466 through October 22, 2026. These totals should not be interpreted as a uniform annual trend because the second year is incomplete and domestic sales also fluctuated.

Within the localized-product subset, 3,191 sales of 14 English- and Spanish-language products were recorded, involving 2,799 distinct buyers. Reported gross revenue denominated in US dollars was US$277,356.11. This figure does not represent profit: operating costs, media expenditure, taxes, and commercial revenue-sharing arrangements are not fully reflected

in this measure. Cookie Academy PLUS - English accounted for 2,523 sales, approximately 79% of subset B sales.

4.2 Demand formation and localization sequence

The records show that international demand preceded structured localization. From January 1 to July 12, 2023, 310 sales to buyers outside Brazil were observed, approximately 49 per month, across 37 countries. Spanish-language campaigns began on July 13, 2023, although the product remained in Portuguese, with Spanish subtitles automatically translated by Hotmart. The first identified AI-based video translation using HeyGen dates to March 12, 2024, when a video featuring the Chef was translated into Spanish. Thereafter, videos translated with this tool were posted to a Spanish-language Instagram account, and some were promoted to Latin American audiences, including on April 22, 2024. The first campaign identified as targeting the United States dates to October 22, 2024.

In February 2025, the English-language operation acquired dedicated materials. A folder and an English-language sales video were recorded on February 12, 2025; on February 26, an English-language advertisement, a cloned-voice audio recording of the Chef generated with ElevenLabs, and an English-language Meta Ads campaign were documented. Although an ElevenLabs subscription receipt dates to October 20, 2023, there is no evidence that the tool was used in the Chef's operation that year. HeyGen, already in use since 2024, was subsequently combined with ElevenLabs to dub videos, including translation of the sales video into Spanish on February 4, 2025, and into English in June 2025, as well as advertisements originally produced for Brazilian audiences.

4.3 Descriptive evolution across phases

Phase	Period	Sales outside Brazil	Monthly average	Countries
F0: Before Spanish-language ads	01/01/2023–07/12/2023	310	49	37
F1: Spanish ads and automatic subtitles	07/13/2023–03/11/2024	420	53	34
F2: AI-translated Spanish-language content	03/12/2024–02/25/2025	905	78	45
F3: English-language product and comprehensive AI localization	02/26/2025–10/22/2026	3,587	181	132

The largest descriptive difference occurred between F2 and F3: the average rose from 78 to 181 international sales per month, while geographic reach increased from 45 to 132 countries. However, F3 simultaneously encompasses an English-language offering, new campaigns targeting cold audiences, and expanded AI use for voice cloning and translated videos. The specific contribution of each component cannot be disentangled. Between F1 and F2, when AI began to be used in Spanish-language content, the average increased from 53 to 78 monthly sales, a change that also coincided with greater advertising investment in Latin America. Taken together, these observations suggest substantial changes in operational scale but do not warrant concluding that AI alone caused the observed increase.

4.4 Campaigns and creative variations

During the documented advertising period from September to October 2026, the English-language campaign "KK Scale | 6 campeões" incurred expenditure of BRL 26,213.07, generated 656,617 impressions, and recorded 87 sales attributed by Utmify, with a gross return on ad spend (ROAS) of 1.65 calculated by that tool. A Spanish-language relaunch campaign recorded expenditure of BRL 3,654.81 and 15 Utmify-attributed sales, with ROAS of 1.51. These values describe campaign performance during the specified periods and do not represent the operation's net financial results.

The selected creatives illustrate a deliberate sequence of message framing. The English-language "lemon_v01" video originated from a Brazilian advertisement for the Sicilian Lemon Cookie product, dubbed into English using ElevenLabs and HeyGen. According to the strategist, the hypothesis was that North American consumers unfamiliar with the Chef would respond to an offer that addressed their problem independently of the specialist's authority; the tested modification was the opening hook. The creative was selected during a test of dubbed videos conducted between September 20 and 25, 2026, and scaled from September 27 onward. The "ad-caplus-es-05" creative adapted the same proposition into Spanish, following the sequence described by the strategist: Brazil, the United States, and Spanish-speaking audiences. The "ES-05 galleta01" creative, by contrast, reintroduced the specialist's personal narrative: after creatives that did not feature the Chef had been validated, the decision was made to add personality to the advertisements and begin building his authority outside Brazil. Subtitled and unsubtitled versions of this creative formed an A/B test, each generating one Utmify-tracked sale; the short duration and limited investment preclude claims that either variant was superior. The hypotheses and decisions were documented through the strategist's retrospective account, supported by campaign names, dates, and Meta Ads metrics.

5. DISCUSSION

The case engages with Vahlne and Johanson (2020) by illustrating gradual learning and market-expansion decisions, and with dos Santos and Williamson (2024) by situating AI among the resources potentially relevant to digital internationalization. The connection is conceptual: the available evidence does not justify equating the operation under study with platforms that infer individual preferences using proprietary algorithms.

The findings reinforce the distinction between the existence of foreign demand and the deliberate development of an international operation. The presence of buyers from different countries in 2023 demonstrates that digital distribution already enabled international transactions, but subsequent development required decisions concerning language, offerings, and acquisition. This trajectory can be interpreted in light of the learning and adaptation processes discussed in internationalization scholarship, without assuming that the case fully reproduces a theoretical model.

The principal empirical contribution is to document the interplay of three dimensions: identifying pre-existing demand; formulating a value proposition accessible to consumers without prior knowledge of the specialist; and localizing commercial materials using technological resources. The use of AI for voice and video formed part of the third dimension and accompanied the operation in stages: first through Spanish-language content beginning in 2024 and later through the comprehensive English-language operation beginning in 2025. The records do not demonstrate that language automation was a sufficient cause of performance, nor that problem-centered positioning statistically outperformed authority-based advertisements.

The findings have practical implications for digital content producers: internationalization is not simply the literal translation of advertisements; it requires assessment of the commercial promise, brand recognition, and purchasing journey. At the same time, the case calls for caution when interpreting platform metrics. Purchases attributed by Meta Ads, UTM-tracked sales, and actual Hotmart transactions measure related but nonidentical phenomena. Transparency regarding the source of each indicator is essential to avoid overstated conclusions.

Limitations include the single-case design, the absence of a control group, simultaneous changes in campaigns and products, differences across observation windows, and partial reliance on retrospective reconstruction of strategic decisions. The study also does not demonstrate income actually earned by purchasers of the courses, nor can its performance be generalized to other sectors or markets. Future research could compare campaigns using experimental allocation, document complete localization costs, and measure effects on trust, comprehension, and conversion across languages.

6. CONCLUSION

The study identified an internationalization trajectory in which international demand preceded the documented adoption of AI tools and was subsequently accompanied by positioning adjustments, campaigns targeting cold audiences, and English- and Spanish-language localization. Between 2025 and October 2026, 3,673 sales to buyers outside Brazil were observed across 132 countries and territories. Phase comparisons revealed substantial expansion during the period combining an English-language offering, new campaigns, and synthetic voice technology, but did not permit isolation of the technology's causal contribution.

The case contributes a traceable reconstruction of decisions, instruments, and outcomes, providing a contextualized account of how localization technologies can be integrated into an international commercial strategy. The central conclusion is not that AI is automatically superior, but that effective internationalization requires coordination among value communication, linguistic adaptation, acquisition architecture, and rigorous verification of evidence.

Declarations and Editorial Information

Author contributions: Rodrigo Fernandez de Almeida conceived the internationalization and positioning strategy described in this study; coordinated the localization of materials using AI tools and the digital acquisition operation, implemented by his team and service providers under his supervision; and compiled and organized the commercial and advertising records underpinning the analysis. Chef Áureo Magalhães is the specialist and producer of the courses examined and authorized the use of his name and sales data in this study.

Affiliation: Pixel N Rock LLC, Orlando, Florida, USA. ORCID: 0009-0001-0543-9878.

Conflict of interest: The author is the founder and CEO of Pixel N Rock LLC, which provides marketing services to the producer examined and serves as a co-producer of the products studied, receiving a share of sales revenue.

Funding: This study received no external funding; costs were covered by Pixel N Rock LLC.

Data availability: Transaction data belong to the producer and contain buyers' personal information; therefore, they cannot be made publicly available. Aggregated and pseudonymized data may be made available upon reasonable request to the author and subject to the producer's authorization.

Ethical considerations: The study used exclusively secondary commercial records, pseudonymized and analyzed in aggregate form, with the producer's authorization. No data were collected directly from human participants; accordingly, the study was not submitted to a research ethics committee.

Use of artificial intelligence in manuscript preparation: ChatGPT (OpenAI) was used for text structuring and linguistic revision, and Claude (Anthropic) for consolidation, verification, and organization of commercial and advertising data. All data, calculations, and interpretations were verified by the author, who assumes full responsibility for the content.

REFERENCES

Coviello, N., Kano, L., & Liesch, P. W. (2017). Adapting the Uppsala model to a modern world: Macro-context and microfoundations. Journal of International Business Studies, 48(9), 1151–1164. https://doi.org/10.1057/s41267-017-0120-x

Johanson, J., & Vahlne, J.-E. (2009). The Uppsala internationalization process model revisited: From liability of foreignness to liability of outsidership. Journal of International Business Studies, 40(9), 1411–1431. https://doi.org/10.1057/jibs.2009.24

dos Santos, J. F. P., & Williamson, P. J. (2024). Beyond connectivity: Artificial intelligence and the internationalisation of digital firms. Information and Organization, 34(4), 100538. https://doi.org/10.1016/j.infoandorg.2024.100538

Vahlne, J.-E., & Johanson, J. (2020). The Uppsala model: Networks and micro-foundations. Journal of International Business Studies, 51, 4–10. https://doi.org/10.1057/s41267-019-00277-x

BIOGRAPHY

Rodrigo Fernandez de Almeida is an entrepreneur and digital marketing strategist, founder and CEO of Pixel N Rock LLC, based in Orlando, Florida, United States. His professional activities focus on digital customer acquisition, product positioning, conversion funnels, and the internationalization of digital businesses. His experience includes coordinating international marketing campaigns, adapting content for multilingual audiences, and integrating artificial intelligence tools into commercial expansion strategies across international markets.

Rodrigo Fernandez de Almeida *é empreendedor e estrategista de marketing digital, fundador e CEO da Pixel N Rock LLC, empresa sediada em Orlando, Flórida, Estados Unidos. Atua no desenvolvimento de estratégias de aquisição digital, posicionamento de produtos, funis de conversão e internacionalização de negócios digitais. Sua experiência profissional inclui a coordenação de campanhas internacionais, adaptação linguística de conteúdos e utilização de ferramentas de inteligência artificial em processos de expansão comercial para mercados estrangeiros.*