

Analysis Bibliometric SME Internationalization Process: Uppsala Model

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Abstract.

A bibliometric analysis centered on the internationalization process of small and medium-sized firms (SMEs) with the Uppsala Model is presented in this article. The Uppsala model, which was first published in 1977, explains the process by which companies become internationalized. This model has been the subject of extensive research and development over the years. The literature on SME internationalization is investigated in this analysis, with a specific focus on the keywords "Uppsala model," "SMEs," "internationalization," and "export." This study use of bibliometric techniques, such as network visualization and density visualization, to uncover patterns in research and author collaborations. The findings underline the usefulness of the Uppsala model in the process of comprehending the internationalization of SMEs and bring attention to aspects such as resources, international plans, and dynamic capabilities that affect this procedure. This study contributes to the current body of information on the internationalization of SMEs and lays the groundwork for further investigation in this area.

Keywords: *Bibliometric analysis, SMEs and Uppsala model.*

I. INTRODUCTION

Internationalization strategies are essential for companies to consolidate profits. They are influenced by company behavior, culture and structure, especially in the case of SMEs (Fernandes et al., 2021). The Uppsala model was published in 1977 and has been further developed since then. This article is the latest effort to explain the evolution of small- and medium-sized enterprises (SMEs) from early steps abroad to becoming global firms. The updated, augmented model explains SME evolution in general, not just characteristics of the internationalization process. The 1977 version emphasizes that small-scale approaches, rather than large foreign investments, are crucial in the internationalization process of firms. Consequently, the Uppsala Model confirmed earlier assertions in the internationalization theory of that era, including the notion that exporting assists in determining the market's nature and size. Another significant observation is that a firm's commitment to a market influences its perception of opportunities and risks.

Therefore, this element is subjective, with the decision-maker playing a pivotal role in commitment decisions. Given that decisions are based on various types of knowledge and recognizing that experiential knowledge cannot be easily acquired, it must be gradually gained through operations in the target country, resulting in a relatively slow process. Lastly, the 1977 version suggests that interactions with other individuals are significant in perceiving and identifying opportunities (a concept further expanded upon in the 2009 version). Moreover, current activities serve as the primary source of experience, contributing to a lengthy learning process closely intertwined with these activities (Cisneros-Reyes, 2021). Scholars have long examined SMEs and know they require methods to compete in the global economy. In today's dynamic and fast changing business world, SMEs confront internal and external obstacles such the elimination of barriers and recent technical improvements in manufacturing, transportation, and communications. This has given SMEs and international entrepreneurs (IEs) worldwide access (Dabić et al., 2020). This study seeks to review the literature on process internationalization SME with Uppsala model.

II. LITERATURE REVIEW

Uppsala Model

The original Uppsala model, published in 1977, explains the internationalization process of companies (Vahlne & Johanson, 2017). The Uppsala model holds a prominent position among the theoretical frameworks concerning the internationalization of small and medium-sized enterprises (SMEs). This paper

specifically centers on the Uppsala model, which places a strong emphasis on knowledge sharing and the establishment of networks between the supply and demand sides of the business (Hasan, 2017). The Uppsala model was intended to analyze the exporting problems and opportunities of large enterprises, but it can also be used for SMEs (Paul et al., 2017). The Uppsala model could help figure out why some companies have "born-global" traits (Paul & Rosado-Serrano, 2019). According to Rochayatun (2022) Dunning's eclectic paradigm focuses on certain aspects of internationalization that correspond to the more advanced stages of the Uppsala model. According to this paradigm, a company is considered to have international production if it satisfies the following criteria:

1. The company enjoys certain advantages inherent in its ownership structure, particularly those not enjoyed by other competitors.
2. Internalization. Ambiguity is usually the main driver behind a company's decision to internalize its market, and the higher the level of ambiguity, the greater the potential benefits for the organization.
3. Location-based benefits. Higher profits are expected when a company's assets are utilized in international markets than in the domestic market.

III. METHODS

Literature review using bibliometric and vosviewer to find related process internationalization with uppsala model. Export, internationalization SMEs and Upssala Model, keywords that often cross path when analyze the internationalization process of a SME. The method used in this study is descriptive bibliometric analysis through publication data on SME internationalization topics in the range of 2017 – 2023 with a limitation of five fields of study including internationalization, international expansion, export, SME, uppsala model and restrictions in the form of the number of documents as many as 100 documents, this is done with the aim of pursuing the search for Uppsala model. Data collection is carried out by searching for publications indexed by Google Scholar using the Publish or Perish application. Bibliometric mapping of the development of information architecture research on Google Scholar using Vosviewer.

After the data is collected and stored in RIS files, Vosviewer software is used to visualize network patterns or bibliometric relationships into three categories: network visualization, overlay visualization, and density visualization. Network visualization shows if research terms are connected, overlay visualization shows historical traces based on the year of publication, and density visualization emphasizes research groups. Bibliometric analysis is the application of statistical and mathematical methods to literature such as books, magazines, online publications, and other communication media. The mapping obtained by Vosviewer can later be used as a reference in conducting accurate content analysis based on the names of researchers, publishers, and Uppsala model research trends. In this study, bibliometric analysis was conducted to analyze the author's collaboration in research related to the Uppsala model and analyze bibliometric relationships based on keywords (co-occurrence) and clusters formed.

IV. RESULT

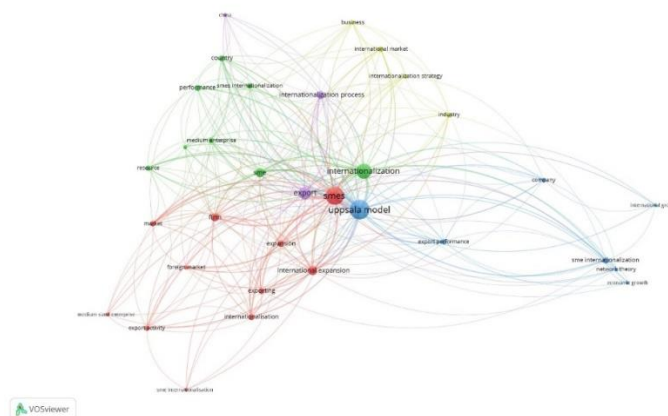


Fig 1. Result of Vosviewer

The Vosviewer analysis revealed that the most popular keywords in the literature were "Uppsala model," "SMEs," "internationalization," and "export." However, terms like "medium enterprise," "industry," and "China" appeared less frequently.

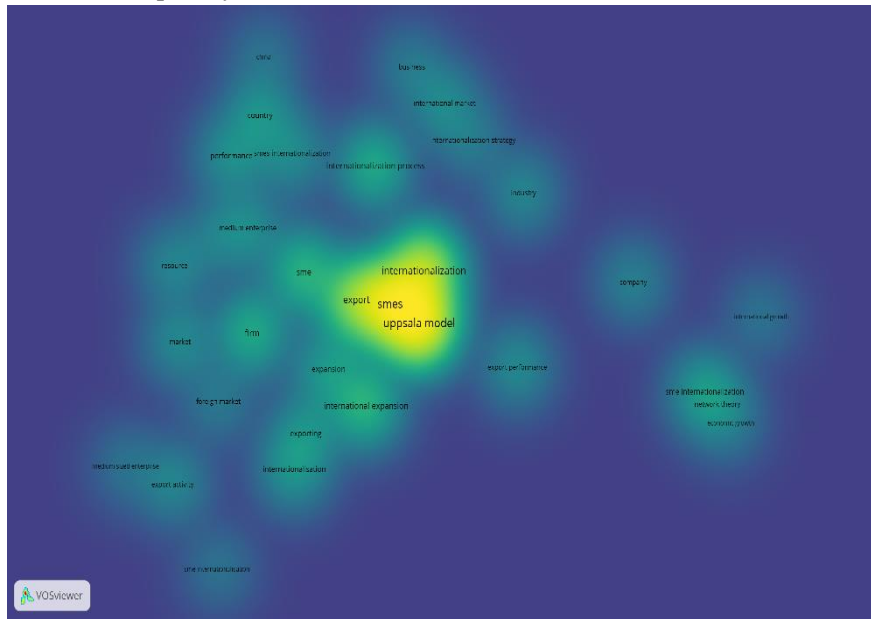


Fig 2. Density Visualization

Density visualization is utilized in bibliometric analysis. Figure 2 displays the visualization, revealing areas of high density where nodes intersect. These dense regions represent extensively researched topics indexed by Google Scholar, as indicated by the saturation level of yellow-marked keywords. Examples of such keywords include internationalization, export, SMEs, and Uppsala model. On the other hand, nodes marked with darker colors signify topics that have received relatively less attention in research.



Fig 3. Co-Authorship

Figure 3. shows a visualization of the network in co-authorship which is characterized by the presence of nodes (circles) representing authors or researchers, and edges (networks) representing relationships between authors or researchers. The set of nodes equipped with the edge explained that there is a correlation or relationship between researchers in the Uppsala model research and the internationalization of SMEs. Not all researchers have a relationship. The relationship between researchers can be seen from:

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2. Moreira – ribau
3. Paul J- Chavan

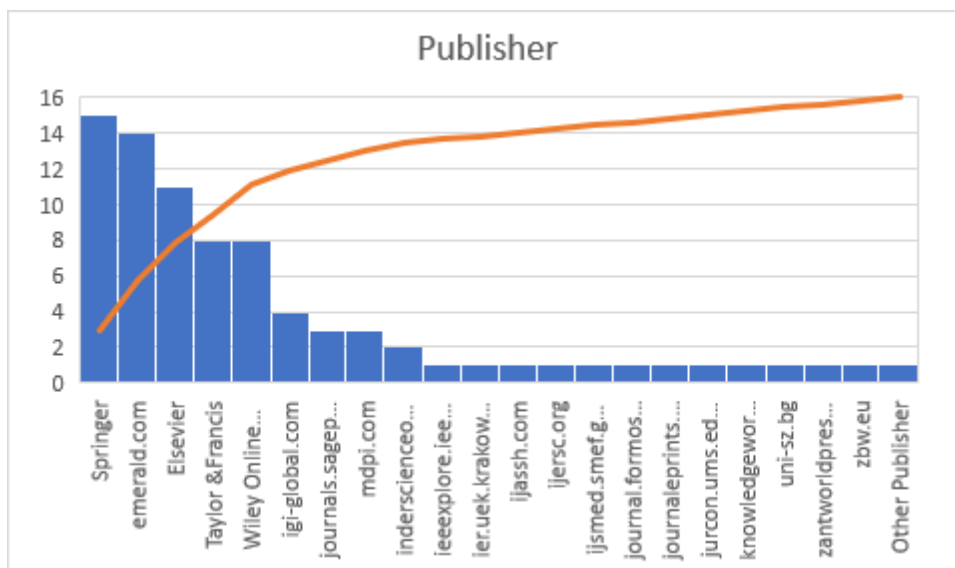


Fig 4. Publishers

Based on 100 articles collected, 3 publishers discussing internationalization SMEs, Uppsala model are springer, emerald and Elsevier. This is very reasonable, because the three publishers are large publishers and have many Scopus accredited journals.

Table 1. Cluster

Cluster	Keywords
Cluster 1	Expansion, Export activity, exporting, firm, foreign market, international expansion, internationalisation, market, medium sized enterprise, sme internationalisation, smes
Cluster 2	Country, internationalization, medium enterprise, performance, resource, sme, smes internationalization, Uppsala
Cluster 3	Company, economic growth, export performance, international growth, network theory, sme internationalization, Uppsala model
Cluster 4	Business, industry, international market, internationalization strategy
Cluster 5	China, export, internationalization process

The processes of internationalization and globalization present small and medium-sized businesses (SMEs) with both a threat and an opportunity. Some of the potential possibilities for SMEs include exporting their products, entering new markets, and collaborating with other countries internationally. Small and medium-sized businesses (also known as SMEs) now have a better chance of competing successfully on international markets thanks to the rapid expansion of international networks and communication (Rochayatun et al., 2022). Gundlach and Sammartino argue that the decision to internationalize a small business relies on the owner's assessment of the company's resources, knowledge, and networks. Additionally, they propose that the owner's perception of personal self-efficacy in the internationalization field plays a crucial role in this decision-making process. As a result, any study examining small business internationalization should consider individual factors, including personal self-efficacy, as important constructs to be taken into account (Vanderstraeten et al., 2020). Companies must implement internationalization strategies to consolidate profits. Especially in the case of SMEs, they are influenced by the behavior, ethos, and structure of the company. Portugal's furniture companies rely on traditional management, resulting in fewer investments in innovation, training, and formation and fewer opportunities for international expansion (Fernandes et al., 2021). Several studies have investigated the processes involved in the development of technological, entrepreneurial, relationship-building, strategic decision-making, and organizational dynamic capabilities. These studies have yielded valuable insights into these areas. Furthermore, certain key studies have highlighted parallels between the development of technological and entrepreneurial capabilities and the internationalization process (Vahlne & Johanson, 2017).

The stage method emphasizes the gradual internationalization of small enterprises and provides actual evidence. The Uppsala model is the most popular of these. (Stouraitis et al., 2017). According to Hasan (2017), The Uppsala Model and the Diaspora network propose a conceptual business framework aimed at facilitating the entry of small and medium-sized enterprises (SMEs) into foreign markets. This

framework aims to simplify the business process for SMEs, making it easier for them to access international markets. Therefore, the fundamental concept that emerges from research that makes use of the Uppsala model is that developing both an objective knowledge of international markets (which can be easily acquired from home markets) and an experiential knowledge of international markets (which can be acquired through engagement in international operations) is necessary for successful international operations (Zahoor et al., 2020). The Uppsala model serves as a representation of the conventional internationalization process followed by multinational enterprises (MNEs), where initial expansion occurs in countries with lower psychic distances. However, there is an increasing trend among multinational corporations (MNCs) from emerging markets (EMNEs) to pursue a more radical and aggressive strategy. These MNCs utilize international expansion as a means to access foreign markets and expand their presence to neighboring countries and regions. (Gao et al., 2022).

The Uppsala Model of internationalization, as described in the 1977 version, identifies two key state variables: market commitment and market knowledge. Market commitment is determined by the resources dedicated to foreign markets and the level of difficulty in finding alternative uses for those resources. It is influenced by factors such as integration within the firm and specialization in the target market. Market knowledge, on the other hand, encompasses the understanding of market opportunities, competition, demand and supply, payment conditions, and other market-specific factors. The model also highlights the significance of current business activities as a source of experiential knowledge, which is critical for decision-making and perceiving concrete opportunities. This experiential knowledge is acquired gradually through operations in the target country and is particularly important in activities involving interactions with other individuals. Additionally, commitment decisions and the scale of operations are influenced by perceived problems and opportunities in the market, as well as economic and uncertainty effects. The model suggests that commitments tend to be made incrementally, guided by market experience and aiming to correct imbalances and mitigate risks. The Uppsala Model, developed during the era of Globalization 2.0, acknowledges the physical barriers and limitations faced by businesses at that time. It has undergone subsequent revisions, such as the 2009 and 2017 versions, which reflect the evolution of ideas and changes in the business world in the stages of globalization (Cisneros-Reyes, 2021).

V. CONCLUSION

This bibliometric analysis provides a concise overview of the literature on the Uppsala model and the internationalization of small and medium-sized enterprises (SMEs). It highlights the importance of the Uppsala model in comprehending the internationalization process of companies, particularly SMEs. The findings emphasize the role of resources, international strategies, and dynamic capabilities in influencing the internationalization of SMEs. This study contributes to the existing body of knowledge on SME internationalization and offers valuable insights for future research in this field.

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