

## The Influence of Behavioral Biases on IPO Intentions: A Study of Moroccan SMEs.

Auteur 1 : EL-AMRAOUI SANAE.

Auteur 2 : EL AAROUBI SIRAJ.

**EL-AMRAOUI SANAE 1**, (<https://orcid.org/0009-0005-2650-5079> \*, PhD Candidate, Faculty of Legal and Economic Sciences of Tétouan , Abdelmalek Essaâdi University, Tetouan, Morocco ).  
Management, Finance, Digitalization and Applied Statistics Research Laboratory.

**EL AAROUBI SIRAJ 2**, ( Research professor , Faculty of Legal and Economic Sciences of Tétouan , Abdelmalek Essaâdi University, Tetouan, Morocco ).  
Management, Finance, Digitalization and Applied Statistics Research Laboratory.

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**Abstract :**

The introduction on the stock market constitutes a considerable strategic opportunity for Moroccan SMEs, offering them access to new financing and the opportunity to increase their reputation. However, the use of the stock exchange remains restricted in this sector. This article aims to study the factors influencing the IPO decision of Moroccan SME managers, by adopting a global approach that combines Ajzen's planned behavior model and the contributions of behavioral finance. We used bibliometric analysis and systematic review to examine the patterns and trends of subject area , with the main focus on citations as the primary measurement unit . Leveraging tools such as Scopus and VOSviewer, the analysis involves 28 papers to unveil evolving trends and scholarly contributions spanning from 2020-2025 . This analysis is important to filling a gap in the researched field because no other bibliometric study has been done on the same topic before .It will also serve to provide a scientific foundation for following research .The results showed that the behavioral biases in particular Overconfidence, optimism, Loss aversion, Herding, risk perception significantly influence the decision of SME managers to resort to an IPO. Overconfidence, optimism, Herding, risk perception has a positive impact, motivating executives to regard the IPO as a profitable option. As a result, the combination of behavioral biases and Theory of Planned Behavior makes it possible to better explain the intention of SMEs to go public than economic or financial factors alone .

**Keywords:** Behavioral finance, IPO, Moroccan SMEs, TPB, Behavioral Biases ,Overconfidence

## 1. Introduction

Initial Public Offering (IPO) is an important strategic step for companies, allowing them to access new funding sources, expand their visibility, and boost their competitive position (Pagano et al., 1998; Ritter & Welch, 2002). Even while, the literature has often approached this decision from rational angle, relying on financial and economic models, including factors such as the capital structure, profitability. In reality, this decision is frequently impacted by behavior and psychological factors. Recent research shows how behavioral finance have a big impact on the strategic decisions. (M. Baker & Wurgler, 2006).

According to (Pompian, 2012) behavioral finance can be divided into two categories: Behavioral Finance Macro, which investigates the efficient market hypotheses and identifies anomalies. And Behavioral Finance Micro which examines the biases and actions of individual investors. Behavioral corporate finance, a subset of BFMI highlights that managers are not entirely rational, and that a variety of factors, including behavioral biases can affect their financial decisions. This study focused on Behavioral biases, defined by (Chikh Sabrina, 2016) as differences between how we reason and how we should.

Research in behavioral corporate finance has developed strongly in recent years, due to the study of (H. K. Baker et al., 2018; Danielson & Scott, 2006; Hazami-Ammar & Sammoudi, 2017a; Peel & Wilson, 1996). However, the literature on managers in particular is lacking, specifically when compared to that on financial market investors (Bessière, 2007). This has been observed and analyzed in large companies, is likely to be more pronounced in SMEs, who are the engines of growth and job creation.

Even though Morocco has a regulated and structured stock market, and even the establishment of an alternative market specifically dedicated to SMEs, which is intended to facilitate the access, the number of IPOs remains limited. Therefore, the primary goal of our study is to respond to the following query:

**How does the integration of behavioral biases in the Theory of Planned Behavior (AJZEN) make it possible to explain the intention of Moroccan SMEs to go public?**

To understand this problem, The Theory of Planned Behavior (TPB), which proposed by (Ajzen, 1991), serves as useful framework for analysis. This model proposes that the desire to adopt a behavior is determined by three factors: attitude toward the behavior, perceived social norm, and perceived behavioral control. By including behavioral biases into this model, it becomes able to study how the subjective perceptions of Moroccan SMEs leaders affect their decision to list their company on a stock exchange.



However, the literature shows that this rational process is often difficult for SMEs to implement, in particular because of their lack of financial knowledge, and highlights the fact that the terms frequently encountered are not always related to this strictly rational approach. But notions related to behavioral biases such as Overconfidence, Optimism, Risk Perception, Loss aversion, Herding and other psychological mechanisms that influence the decision-making of leaders. These cognitive biases disrupt the traditional linear logic of the investment decision and testify to a more complex behavioral reality (Gveroski & Jankuloska, 2017; Hasan, 2013; Lazaridis, 2004; Peel & Wilson, 1996; Zhao & Zhang, 2019).

**Fig 2 Behavioral Biases Affecting IPO Intentions in SMEs**



Source: own elaboration

## 2.2 Behavioral biases and IPO decisions

### 2.2.1 Overconfidence

Overconfidence bias is the tendency to overestimate one's skills, knowledge, and capacity for future prediction and control. According to (Chikh Sabrina, 2016) it is important to distinguish between overestimating our knowledge's correctness and thinking that we do better than the average on certain activities, even without a way to compare with that average.

There are two complimentary methods to characterize managerial overconfidence. Initially, it entails the management overestimating the amount of knowledge at their disposal, or the conviction that they have all the information required to make right decision, this is known as miscalibration (Acker & Duck, 2008). Secondly, according to (Camerer & Lovo, 1999), management overconfidence is the overconfidence as the "better-than-average effect", which is the overestimation of the leader's own abilities. This overconfidence bias is widely noticed in business leaders, as it is often necessary to take such responsibilities (Hiller & Hambrick, 2005). Overconfident leaders overstate their control over events, underestimate dangers, and overestimate their expertise (Malmendier et al., 2011).

Researchers have been examining the connection between financial decisions and overconfidence since the 2000s. Managers that are overconfident often overestimate the chances that their investment decisions will succeed (Hazami-Ammar & Sammoudi, 2017a). For (Malmendier & Tate, 2005a) investment decisions in an efficient market are impacted by overconfidence, which shows up as a distorted view of investment opportunities.

In light of these presumptions, our goal is to investigate the following hypothesis:

**H1:** Managers with overconfidence in Moroccan SMEs are more susceptible to making IPO decisions.

### **2.2.2 Optimism**

(Pompian, 2006) Defines excessive optimism as an positive and idealistic view of the future. According to (Puri & Robinson, 2007) life expectancy experiment, individuals tend to overestimate the likelihood of positive future events and underestimate the risks of negative experiences.

Excessive optimism encourages managers to prioritize positive scenarios and to overestimate their company's future success. This bias, which (Heaton, 2002) introduced to business domain, makes individuals tend to overestimate the profitability of their projects and think their companies as undervalued by the market. Consequently, their investment decisions is facilitated by an overestimation of their previous and prospective performance (Hazami-Ammar & Sammoudi, 2017b).

According to studies by (Heaton, 2002; Malmendier & Tate, 2005b), managers' investment decisions are significantly influenced by their level of optimism. Optimistic managers place a greater value on their company because they think the market is undervaluing it (Fairchild, 2005). Because of this optimistic outlook, managers tend to overestimate future cash flows and earnings, this might encourage them to make riskier investment decisions.

Consequently, we develop the following hypothesis:

**H2:** Optimistic managers in Moroccan SMEs are more susceptible to making IPO decisions.

### **2.2.3 Risk-Taking Behavior**

Three different types of risk-taking behavior in leaders may be distinguished using prospect theory:

- The risk-averse leader minimizes risks by adhering to established procedures, norms and past practices.
- The unconscious risk-taker underestimates the severity of risks and takes decisions without fully perceiving the possible negative consequences.
- The calculated risk-taking executive adjusts behavior based on past experiences, increasing risk after losses to recover and boosting confidence after victories.

According to (Barringer & Bluedorn, 1999) ,risk-taking is a characteristic commonly linked with entrepreneurship and demonstrates a willingness to take actions that have unclear consequences but possibly large benefits .

Generally ,risk-takers to overestimate potential gains from uncertain strategic choices , whereas risk-averse decision-makers tend to overestimate the chance of losses (Kahneman & Lovallo, 1993). Due to the productive investments are highly irreversible ,disinvesting if outcomes are unsatisfactory is frequently too expensive or unfeasible .This results in less dynamic investment behavior as risk-averse decision-makers often steer clear of high-profit but uncertain possibilities .For (Sauner-Leroy, 2004)there is a clear correlation between a manager’s risk-taking level and the productive investment made by the company .

To test this relationship, the following hypothesis is proposed:

**H3:** Managers with a high propensity for risk-taking are more susceptible to making IPO decisions

#### **2.2.4 Herding**

The term “herding behavior” describes how investors often follow the choices of other market without considering their own data or analysis (Bikhchandani et al., 1992).

According to (Bikhchandani & Sharma, 2000; Park & Kim, 2017)make a distinction between spurious herding ,which results from similar behavior brought on by shared public information , and intentional herding ,in which investors consciously decide to follow others .

Several studies demonstrate that herding is more prominent during periods of high volatility or uncertainty notably in emerging markets (Balcilar & Demirer, 2015).For example , in IPOs ,herding behavior can amplify the initial overvaluation of stocks (Bernales et al., 2015).

The following hypothesis will be examined:

**H4:** Managers with a high propensity for herding are more susceptible to making IPO decisions

#### **2.2.5 Loss Aversion**

In behavioral finance ,loss aversion is a concept central was initially introduced by (Kahneman & Tversky, 1979)using prospect theory .It emphasizes how asymmetrically people react to gains and losses ,where losses seem more significant than gains of the same size .Empirical studies show that investor behavior is significantly influenced by loss aversion .In their analysis and empirical finding,(Hwang & Satchell, 2010) demonstrate that investors are more sensitive to losses than is taken into consideration by traditional financial models ,which affects risk preferences and anomalies in asset pricing .Their finding highlight the importance of recognizing loss aversion in order to understand actual market behavior .

Small and medium enterprises who must make financial decisions in the face of uncertainty should be particularly aware of this behavioral bias. According to studies by (Pompian, 2006; Shefrin,

2001), loss aversion may lead to overly conservative investment decisions and reluctance to take advantageous risks.

We propose the following hypothesis:

**H5:** Managers with high loss aversion are more likely to delay or avoid IPO decisions in order to reduce the potential financial losses.

### 3. Methodology:

VOSviewer was utilized to process and analyze the Scopus dataset. The software visualizes a significant amount of bibliometric data employing scientific mapping and network analysis. The software's name "VOS" refers to Visualization of Similarities, signifies the analysis of items and their distances (Vanhala et al., 2020). With VOSviewer researchers can examine extensive bibliographic databases and find patterns, linkages and trends related to a particular study topic (Van Eck & Waltman, 2010). For (H. K. Baker et al., 2020; Ellili, 2022; Khandelwal et al., 2022; Nobanee et al., 2021) is one of the most used instruments in multiple bibliometric reviews, this tool has various advantages in bibliometric analysis (Van Eck & Waltman, 2010). The benefits include the free accessibility of VOSviewer, the simple interface, configurable analysis (Co-citation analysis, Keyword analysis, Co-citation documents...), flexible data input (Scopus, web of science, ...), and a variety of visualization options (Mapping of top co-cited references).

To determine the psychological and emotional factors influencing the IPO intentions of SMES and understand the evolution of this research, an analysis technique as "Bibliometric analysis" was employed. It is a quantitative approach that aims to analyze, connect, map, and visualize publications and contributions related to a certain area of study.

To map the study of behavioral finance and investment decision (IPO), four different forms of bibliographic analysis were used: bibliographic coupling, co-authorship, co-citation, and co-occurrence analysis.

Initially, bibliographic coupling is a form of similarity measure that uses a similarity measure to categorize documents into specific, similar connections (Khatib et al., 2022a). This approach takes into account elements such as author, research areas, citation network, and publication content (Lim & Buntine, 2016). The same is true for co-citation, also considered a similarity metric for documents mentioned concurrently, although of the semantic type (Boyack & Klavans, 2010). For (Small, 1973) co-citation is a kind of measurement that assesses the frequency of two cited papers together to assist in organizing the similarity of subject area. The third analysis that was done was on co-authorship, it is a sort of cooperation between two or more authors who share the authorship of a publication and the effort required to publish it (Glänzel & Schubert, 2005). Reference (Ponomarev & Boardman, 2016) In co-authorship, any form of individual contribution will be represented in journal article, enabling each author to share responsibility for the results. Finally,

co-occurrence analysis tends used as the basis and framework for data mining techniques when working with both textual and numerical data (Buzydlowski, 2015).co-occurrence analysis is the quantitative counting of two word-based with some mutual association, it is sometimes referred to as coincidence or concurrence (Muppidi & Reddy, 2020).

Scopus was the primary database tool used for this study to create the search query and collect the data needed for the analysis .For (Nobanee et al., 2021) is the largest abstract and citation database of very large ,peer-reviewed publications ,including books, journal articles ,conference proceeding ,and book chapters. Using such database made it easier to access a structured data collection of articles and documents largely focused on the psychological and emotional factors influencing the IPO intentions of SMES. on July 22 July 2025, a query was explored and used to search the Scopus database.

As shown in **Table 1** and **Source:** Own elaboration

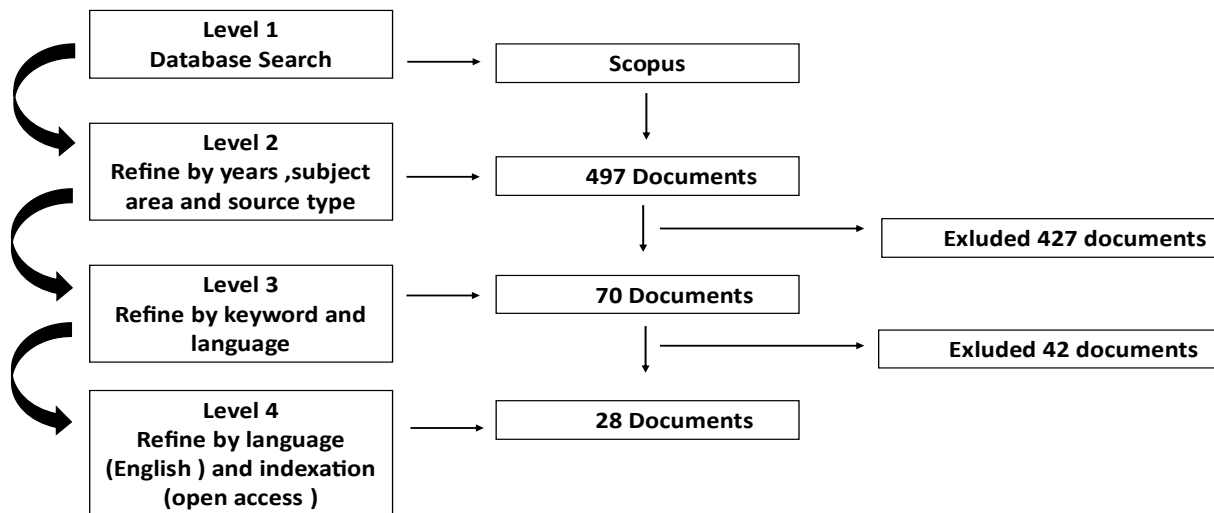
**Fig 3** to limit the final dataset to the most pertinent documents ,the constructed query underwent three refinements .This refinement procedure is as follows: The first query’s predetermined search parameters included the two primary terms “behavioral Finance” AND "investment decision" appearing in the database documents ‘titles ,abstracts or keywords .A total of 497 documents were generated based on the search criteria .Next, the query’s search parameters were modified to limit our search to articles , and considered subject area : Economics, Econometrics and Finance .Furthermore ,the refined dataset included documents published within the last five years (2020-2025) , the number of papers decreased from the original set of 497 to 150 . A further refinement of the query was restricting the search results to just English-language and open access documents, which led to a reduction in the number of documents from 150 to 28 documents.

**Table 1** Scopus database query.

Description	Conditions	Number of documents
<b>Search query</b>	TITLE-ABS-KEY ( "behavioral Finance" AND " investment decision" )	497 documents
<b>Years</b>	2020-2025	321
<b>Subject area</b>	Limited to Economics, Econometrics and Finance	188
<b>Source type</b>	We limited our search to articles	150
<b>Keyword</b>	<i>Limited to</i> Behavioral Finance <i>/to</i> Investment Decision	73
<b>Language</b>	<i>Limited to</i> English	70
<b>Access</b>	<i>We included both open access documents</i>	28

Source: Own elaboration

**Fig 3** The process applied for delimiting literature (PRISMA chart)



Source: Own elaboration (2025)

The dataset that obtained from Scopus was processed and examined using VOSviewer .It is a scientific mapping and data network tool that has a tendency to systematically visualize a lot of bibliometric data . The software’s name ”VOS” stand for “visualization of similarities , which is represented in terms of the examined items and their distances (Vanhala et al., 2020).Using the bibliometric analysis program VOSviewer ,researchers examine large bibliographic databases and find patterns ,connections and trends in a particular study subject (Van Eck & Waltman, 2010).For (H. K. Baker et al., 2020; Ellili, 2022; Khandelwal et al., 2022; Nobanee et al., 2021) it the most used tools in bibliometric reviews .

#### 4. Results and discussion

Multiple analytical instruments, including co-occurrence, co-authorship, and co-citation analysis, were employed to ascertain the most distinguished writers, countries, journals, and documents.

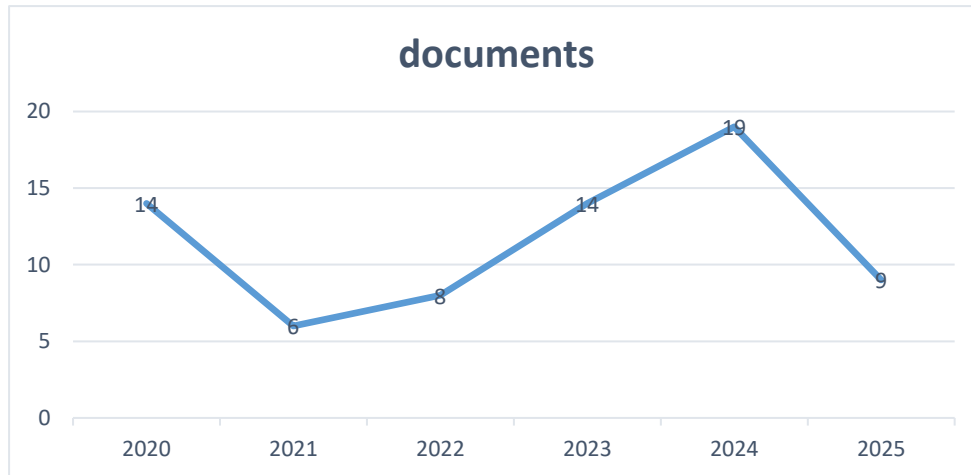
##### 4.1 Publication growth

**Fig 4** shows that the number of publications addressing behavioral finance and investment decisions will vary between 2020 and 2025.

After an initial peak in 2020 (14 documents), we observe a significant drop in 2021 and 2022, which can be explained by the impact of the COVID pandemic, followed by a gradual recovery reaching (19 documents) in 2024, it is the post-crisis period marked by inflation and complex investment decisions.

Note that the decrease in 2025 could be explained by the fact that the year is not yet over (editorial deadlines).

**Fig 4** Illustrates the increase in publications pertaining to behavioral Finance and investment decision



Source: Own elaboration from Scopus data (2025)

## 4.2 Citation analysis

### 4.2.1 Leading sources by the number of documents

**Table 2** presents the sources with the highest number of documents identified as leading sources. These include investment management and financial innovations and journal of behavioral and experimental finance and psu research review with 2 documents, international journal of applied economics, finance and accounting, journal of banking and finance, journal of business economics and management and quarterly journal of austrian economics with 1 document.

**Table 2** Leading sources by the number of documents.

Rank	Source	Documents	Citations	Total link strength
1	international journal of applied economics, finance and accounting	1	0	0
2	investment management and financial innovations	2	0	0
3	journal of banking and finance	1	3	0
4	journal of behavioral and experimental finance	2	2	0
5	journal of business economics and management	1	1	0
6	psu research review	2	20	0

7 quarterly journal of austrian economics 1 0 0

Source: Own elaboration using VOSviewer

#### 4.2.2 Top-cited journal

**Table 3** Display the important sources ranked by the number of citations.it presents the main finding of the most frequently cited studies, which were evaluated to assess the importance and impact of the articles.

*Table 3 leading sources by the number of citations.*

Rank	Source	Documents	Citations	Total link strength
1	psu research review	2	20	12
2	journal of behavioral and experimental finance	2	2	10
3	investment management and financial innovations	2	0	6
4	journal of banking and finance	1	3	5
5	journal of business economics and management	1	1	5
6	international journal of applied economics, finance and accounting	1	0	2
7	Quarterly journal of austran economics	1	0	0

Source: Own elaboration using VOSviewer

#### 4.2.3 Leading authors on the number

The **Table 4** provides a list of authors who have received the largest number of documents among those obtained from the Scopus database.

*Table 4 Authors who received the largest number of documents among those recovered from the Scopus database.*

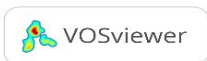
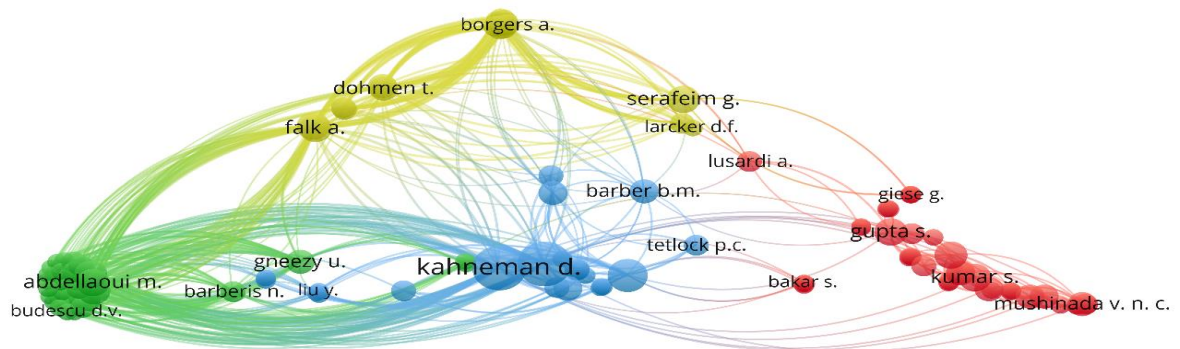
Rank	Author	Documents	Citations	Total link strength
1	hossain,tanzina	1	15	71
2	Siddiqua ,pallabi	1	15	71
3	Kaab omeir ,ahmad	1	1	319
4	Lehal, ritu	1	5	96
5	Kanapickas,tomas	1	1	319
6	Chaudlhay ,manoj kumar	1	0	195

Source: Own elaboration using VOSviewer

### 4.3 CO-CITATION ANALYSIS

#### 4.3.1 Co-citation documents

**Erreur ! Source du renvoi introuvable.** illustrates co-citation documents relating to the investment decision and behavioral finance with the number of published documents used as the



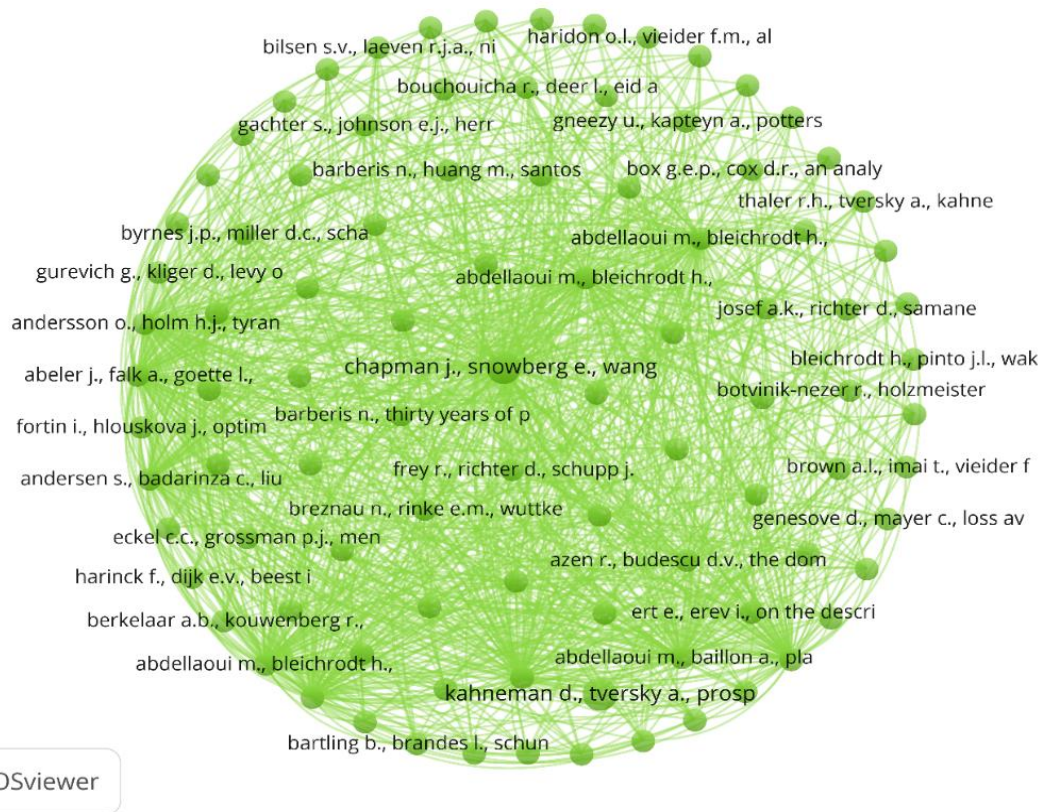
basis of the analysis.

**Fig 5** Show the use of VOSviewer to examine co-cited documents among authors.

Source: Own elaboration using VOSviewer

#### 4.3.2 Top co-cited references

**Fig 6** Mapping of top co-cited references.



Source: Own elaboration using VOSviewer

Co-citation analysis is a type of analysis that helps to structure the similarity of a particular domain by evaluating the frequency of a cited reference. Two documents are called co-cited references when they are both included in the reference list of another third document (Khatib et al., 2022b). As shown in **Fig 6**, the co-citation analysis revealed that there are 4 documents out of 575 that are co-cited at least twice. The analysis resulted in the assignment of all the co-cited references to a single cluster, which means that all the co-cited references in the network map are closely linked to each other.

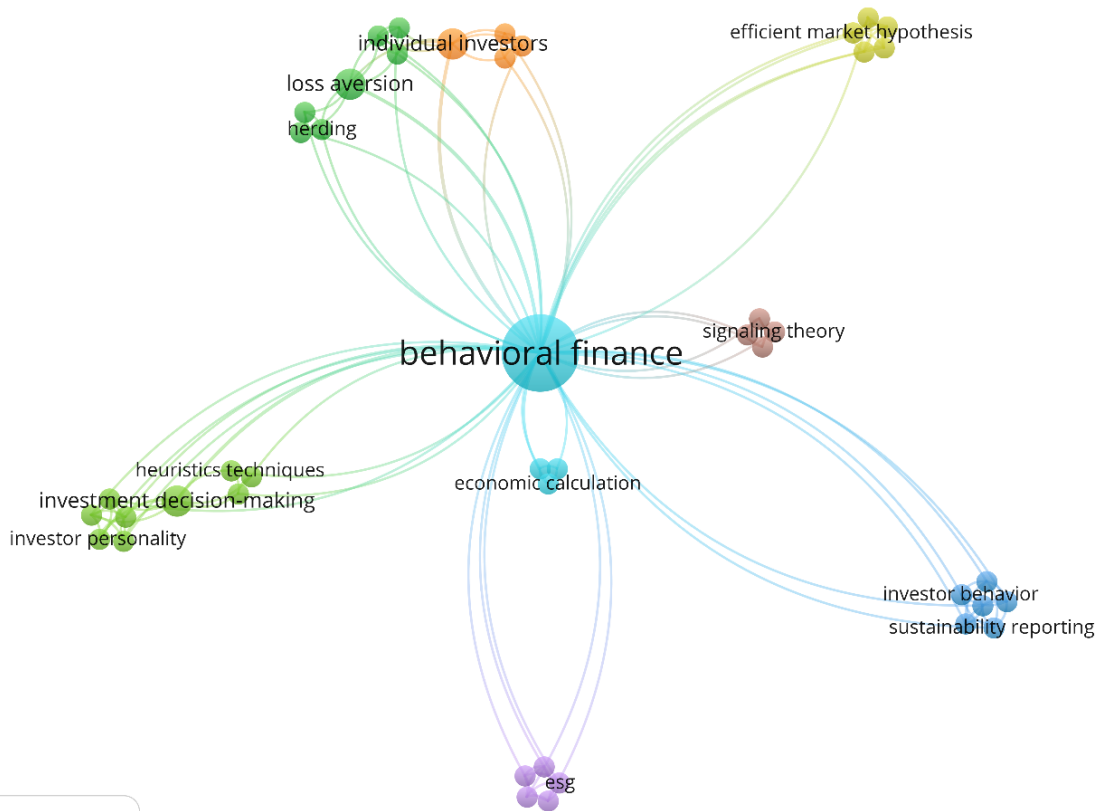
The strength of the relationship between the elements of analysis, such as the cited references, is represented by the distance between the elements appearing on the network map. Thus, the closer the cited references are to each other, the stronger their relationship.

In this co-citation analysis, the total link strength, provided by VOSviewer, was used to measure the strength of a pair of connected references.

#### 4.4 Keyword analysis

We conducted a network analysis to identify keywords related to behavioral Finance and investment decision, as illustrated in **Fig 7** and **Table 5**. This research enabled us to trace the intellectual structure of the literature and show the development of the research structure and field. We found the 10 most often used keywords based on the titles of the research papers: Behavioral finance, Investment decision-making, Loss aversion, Behavioral biases, Indian stock market, Risk perception, Heuristics bias, Overconfidence, Investor behavior, Classical finance theories.

Fig 7 Illustrates the application of VOSviewer in generating a visual map of frequently occurring



keywords based on articles retrieved from the Scopus database.

Source: Own elaboration using VOSviewer

Table 5 Presents the occurrence of keywords found in documents identified in the Scopus

Rank	Keyword	Occurrences	Total link strength
1	Behavioral finance	10	46
2	Investment decision-making	2	10
3	Loss aversion	2	9
4	Behavioral biases	1	6
5	Indian stock market	1	4
6	Risk perception	1	4
7	Heuristics bias	1	4
8	Overconfidence	1	4
9	Investor behavior	1	6
10	Classical finance theories	1	6

Source: Own elaboration using VOSviewer

### 5. Gluster analysis

Content analysis examines patterns in documents and draws inferences from them. **Table 6** summarizes the most relevant studies on behavioral Finance and investment decision. The authors names, the study's objective, the results, and future suggestions are summarized in the table. The collection of articles includes various studies on the IPO intentions of SMEs, an analysis based on the behavioral finance model to better understand the psychological and emotional factors influencing this decision.

**Table 6** Cluster analysis

Gluster	Author	Purpose	Finding	Suggestions for future research
<b>Behavioral Biases and Investment Decisions of SMEs Managers (Moroccan SMEs)</b>	(Benayad & Aasri, 2023)	This article examines the impact of overconfidence, optimism, risk aversion, mimicry, and intuition on SME managers' investment decisions in Morocco.	<ul style="list-style-type: none"> <li>• Risk taking, optimism, and intuition significantly influence investment decisions.</li> <li>• Overconfidence has little impact.</li> <li>• Mimicry makes managers peer-influenced.</li> <li>• Managers can use intuition for timely decisions.</li> </ul>	What other factors such as financial constraints, macroeconomic variables, or managerial experience might contribute to the explanation of SME managers investment decisions?
<b>Behavioral Biases in SME Investment Decisions (Cross-country study)</b>	(Rafinda et al., 2024)	This article investigates how psychological biases (overconfidence, prospect theory, herding behavior, emotions) affect investment decisions among SME owners across four countries: Indonesia, Hungary, Poland, and Romania.	<ul style="list-style-type: none"> <li>• Overconfidence adversely impacts investment outcomes in all countries.</li> <li>• Prospect theory (loss aversion) positively affect long-term investment strategies.</li> <li>• Herding behavior has varied effects (negative in some regions).</li> <li>• Positive emotions encourage more positive investment notably in Indonesia and Romania.</li> <li>• significant cross-country disparities underline the relevance of cultural and economic context in behavioral finance</li> </ul>	How can distinct cultural and economic setting in different countries reduce the impact if behavioral biases on SME investment decisions?
<b>Behavioral Biases in SMEs'</b>	(Ayad et al., 2024)	This paper examines how behavioral biases:	<ul style="list-style-type: none"> <li>• Overconfidence and anchoring have a beneficial</li> </ul>	How may the intervention of behavioral training

<b>Borrowing Decisions</b>	(Bouml ik et al., 2025)	This article identifies the determinants of debt policy among unlisted Moroccan family SMEs and compares them with non-family SMEs	<p>effect on the propensity to take bank loans.</p> <ul style="list-style-type: none"> <li>• Risk aversion and confirmation bias have a negative effect on the other hand managerial myopia does not significantly influence borrowing decisions.</li> <li>• Good past financial performance, longer banking relationships, and lower risk scores all favorably influence the decision to borrow.</li> </ul>	programs for SME managers change the role of cognitive biases on borrowing decisions?
<b>Determinants of Debt Financing Behavior of Unlisted Moroccan Family SMEs</b>	(Bouml ik et al., 2025)	This article identifies the determinants of debt policy among unlisted Moroccan family SMEs and compares them with non-family SMEs	<ul style="list-style-type: none"> <li>• All the biases studied overconfidence, herding, risk aversion significantly influence investment decisions.</li> </ul>	To what degree can individual characteristics such as age, gender, or education, cultural contexts, influence the impact of behavioral biases on investment decisions?
<b>Heuristic bias and investment decision (Nepalese stock Market)</b>	(Kumar Chaudh ary et al., 2025)	This paper analyzes how heuristic biases and risk perception interact in investment decisions in Nepal	<ul style="list-style-type: none"> <li>• Behavioral factors are significant determinants in how investors approach financial decisions: 1.1 Risk perception has a major mediating role in investor decision-making.</li> <li>• Overconfidence bias mainly effects investing decisions indirectly via risk perception.</li> <li>• Representativeness, availability, and anchoring biases have both direct and indirect influences on investment decisions.</li> </ul>	What concrete policy or initiative may regulators and policymakers adopt to improve investors' financial literacy and reduce behavioral bias impacts in developing markets like Nepal?
<b>Behavioral aspects and Investment Decision-making of Individual Investors</b>	(Hossai & Siddiqu a, 2024)	This paper determines how behavioral biases: loss aversion, overconfidence, risk perception, herding affect	<ul style="list-style-type: none"> <li>• Emotional and behavior factors, particularly risk aversion and risk perception, significantly impact the decision-making of investors on the DSE.</li> </ul>	How can market authorities assist investors in comprehending and manage their psychological biases

<b>(Bangladeshi Stock Market)</b>		decision-making of investors on the Dhaka Stock Exchange.	<ul style="list-style-type: none"> <li>investors often act emotionally, not according to classical financial theory.</li> </ul>	during stock investing decision -making?
<b>Comprehensive review of behavioral biases in financial decision-making</b>	(Kanapi ckiene et al., 2024)	This paper to systematically review the evolution of financial decision-making theories, identifying fundamental biases and their impact on investment decision	<ul style="list-style-type: none"> <li>Behavioral biases (Overconfidence, loss aversion, herding anchoring) significantly influence individual investors' financial decisions and market dynamics.</li> <li>understanding the behavioral biases is essential for effective risk management.</li> </ul>	How can future research better incorporate knowledge of different behavioral biases and investor personality factors to improve risk management strategies and promote rational investing decisions?
<b>Behavioral biases affecting investment decisions of capital market investors (in Bangladesh)</b>	(Yasmin & Ferdous, 2023)	this article is to identify the behavioral and psychologic biases that impact the investment decisions of individual investors in Bangladesh	<ul style="list-style-type: none"> <li>the most influential behavioral biases affecting investment decisions on the Dhaka Stock Exchange are: Cognitive Dissonance, Regret Aversion, Loss Aversion, Overconfidence, Hindsight, Illusion of Control, Herd instinct, Self-attribution and Representativeness</li> </ul>	How can financial authorities help investors and limit the influence of behavioral biases on their decisions in the stock market?
<b>Behavioral Factors Effect on Investors' Investment Performance (Nigerian Capital Market)</b>	(Edeh et al., 2022)	This article examines behavioral factors (Heuristics, Prospects, Herding, and Market) that influence stock investors' performance in Nigeria's capital market.	<ul style="list-style-type: none"> <li>the behavioral factors (herding effect, risk aversion, prospecting, and anchoring) have a significant effect on investment performance in Nigeria's Capital Market</li> </ul>	How can capital market authorities help Nigerian investors detect and manage Behavioral bias to develop their investment performance?
<b>Risk Absorption, Cognition, Neuroplasticity in Investment Decision Making (Indian)</b>	(Behera et al., 2022)	This study examines the mediating effect of risk-absorption attitudes in the relationship between cognition and neuroplasticity in investors.	<ul style="list-style-type: none"> <li>investors neuroplasticity is significantly influenced by Cognition and risk absorption. 2.1 Risk absorption partially mediates the effect of cognition on neuroplasticity.</li> <li>Enhancing cognitive skills, risk absorption can help</li> </ul>	How can policymakers and financial educators improve investors' cognitive abilities and risk-absorption capacity to help them overcome losses and invest more

<b>Stock Market)</b>		emotionally hurt investors confidently in the regain confidence and stock market? willingness to participate in Indian Stock Market.
<b>Contextual factors influencing investment decision making (Indian Stock Market)</b>	(Sachdeva & Lehal, 2023)	This paper attempts to provide a comprehensive view of factors influencing investment decision making process of stock market investors in North India.
<b>psychological factors exert greater influence on investment decisions (Borsa Istanbul)</b>	(Acikgoz & Karatas, 2023)	This article investigates the impact of psychological and physiological factors on investment decisions, using PEAD (Post-Earnings Announcement Drift) during Ramadan in Borsa Istanbul.
		<ul style="list-style-type: none"> <li>the factors significantly influence investment decisions are: firm image, accounting information, neutral information, advocate recommendation.</li> <li>The psychological factors such as heightened sentiment, self-awareness, and spirituality dominate over physiological factors</li> </ul>
		How can investment decision research integrate demographic factors and regions beyond North India?
		Would similar results be observed in other Muslim-majority countries as Morocco?

Source: Own elaboration

## 6. Discussion

The bibliometric analysis will review the current literature on the psychological and emotional factors influencing the IPO intentions of SMES, detect emerging trends, and identify gaps in this research topic. Data obtained from Scopus utilizing the keywords "behavioral Finance» AND « investment decision" revealed 28 documents from 2020 to 2025, including a significant increase in 2024. This suggested that there was increasing interest in this field and that this subject area was relatively new.

According to Reference (Boumlik et al., 2025) , All the biases studied overconfidence, herding, risk aversion significantly influence investment decisions .These conclusions are supported by the cluster analysis, particularly the analysis of Cluster One (Benayad & Aasri, 2023) ,the Risk taking , optimism ,and intuition significantly influence investment decisions ,then Overconfidence has little impact and conclude that mimicry makes managers peer-influenced .

Our bibliometric analysis of the behavioral factors influencing the IPO intentions of SMES reveals a strong presence of various behavioral biases. These include: overconfidence, optimism, loss aversion, herding behavior, and risk perception. Even while these biases are often discussed separately, there are seldom combined into a coherent theoretical framework. As a result of this observation, we suggested a conceptual restructuring based on Theory of planned behavior (Ajzen, 1991). This study is the outcome of an original and personal reflection aimed at improving Theory of planned behavior by adding behavioral psychology, to better examine SMES intentions to go public, specifically in the Moroccan setting.

The intention for Ajzen indicates the desire to try the act and the effort desired to behave in certain way (Ajzen, 1991), it is based on three factors :

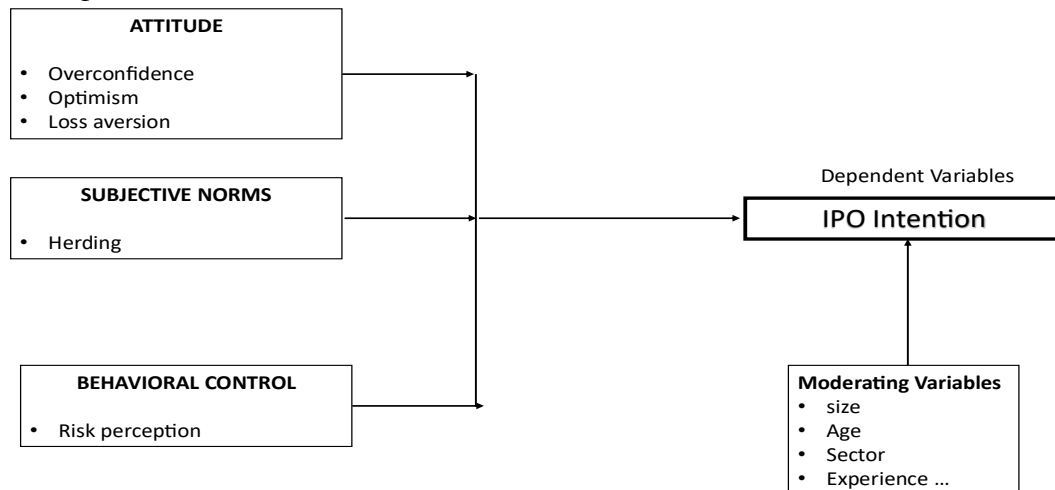
- The attitude toward the behavior: the degree to which an individual has favorable or unfavorable views of the behavior in question.
- Subjective norm: The perceived social pressure to be performed or not the behavior.
- Perceived behavioral control: the perceived ease or difficulty of carrying out the behavior is influenced by both expected barriers and challenges as well as past experience.

**Table 7** integration of behavioral biases into the Model AJZEN

The TPB Model	Behavioral biases	Influence on IPO intention	Theoretical Foundations
Attitude	Overconfidence	A SME whose leaders show an excess of confidence is more inclined to overestimate the probabilities of success of an IPO, which increases its intention to proceed with this operation.	(Hazami-Ammar & Sammoudi, 2017b; Malmendier & Tate, 2005b)
	Optimism	A SME with optimistic managers frequently intends to proceed with an IPO, expecting positive outcomes despite the risks.	(Fairchild, 2005; Heaton, 2002; Malmendier & Tate, 2005b; Puri & Robinson, 2007)
	Loss aversion	A SME whose shareholders who have highly loss aversion, adopts a cautious attitude, which may reduce its intention to launch an IPO.	(Kahneman & Lovallo, 1993; Sauner-Leroy, 2004)
Subjective norms	Herding	A SME influenced by herding behavior is more likely to follow its sector's trend, which may raise its intention to go public if other market participants are doing the same.	(Balcilar & Demirer, 2015; Bernales et al., 2015)
Behavioral control	Risk perception	A SME whose leaders with an illusion of control frequently overestimates their chances to succeed in the IPO, increasing their intention to proceed.	(Hwang & Satchell, 2010; Pompian, 2006; Shefrin, 2001)

Source: Own elaboration

**Fig 8 Conceptual Model**



Source: Own elaboration

## 7. Conclusion:

This study provides valuable insights about the current state of research on Behavioral biases and IPO decisions. The analysis discovered a significant increase in publications on the topic after 2021, indicating growing interest.

Thus, this study presents a bibliometric analysis to help future researchers conduct more efficient studies. The Scopus database was used to collect all pertinent publications in this area. Additionally, VOSviewer was utilized to visualize the connection between the datasets that were obtained from Scopus.

Results demonstrated that beyond economic and financial determinants, behavioral biases such as Overconfidence, optimism, Loss aversion, Herding, risk perception play a decisive role in shaping IPO decision. By using cluster analysis, we determined that behavioral biases and Theory of Planned Behavior should be combined to better understand the IPO intention of Moroccan SMEs. This study led us to propose the integration of the theory of planned behavior with behavioral biases, resulting in a conceptual model that goes beyond the classical explanatory models.

Based on the results that have been presented, we conclude with some recommendations for future research:

- Developing empirical indicators for each identified behavioral bias
- Using advanced statistical methods to test the model, like Confirmatory Factor Analysis (CFA), Structural Equation Modeling (SEM).

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