

Does honesty on budgeting matter? New evidence from bibliometric analysis

Dewi Sukmasari, Putri Yulhita Claraini, Ecin Saptia, Deslia Sari,
Aryan Danil Mirza. BR*, Neny Desriani
Department of Accounting, Faculty of Economics and Business, Universitas Lampung
*Corresponding author: Aryan.danil@feb.unila.ac.id

Abstract

Budgeting serves as a framework for organizational financial planning and decision-making. However, the budgeting process often faces challenges from various factors, including the honesty of the managers involved. The role of manager honesty in budgeting is an important aspect that can significantly prevent budgetary slack and have an impact on the integrity and transparency of organizational finances. Therefore, understanding the correlation between manager honesty and budget preparation is very important. This study aims to determine the development map of research on honesty and budgeting using bibliometric analysis method. The analysis was conducted on articles published in Scopus indexed journals in the range of 1991-2023. With the number of incoming publication articles totaling 38 documents. Publication data collection is done using publish or perish, then the data is processed using Microsoft Excel and to visualize the data using VOS viewers. This research is to examine trends, citation patterns, the most popular authors and to find out the future of honesty and budgeting. It is hoped that this research can provide information and insights that can help practitioners and academics, especially in the field of budgeting.

Keywords: Bibliometric Analysis, Scopus Data, Honesty, Budgetary Slack, Budgeting, Publication Trends

INTRODUCTION

The development of an increasingly competitive capital market encourages companies to utilize their resources effectively and efficiently. The first step in the allocation of effective resource utilization can be done through the budgeting process (Rankin et al., 2008). In the budgeting process there is subordinate involvement to set and achieve budget targets with superiors as the party allocating these resources (Huang & Chen, 2009). Preparation and implementation in the budgeting process can have a significant impact on the attitudes, behavior and performance of the parties involved in it (Yuen, 2004) in AIE (Rahmawati, 2019). One of the adverse behavioral impacts arising from the budgeting process is the budget gap (Anthony & Govindarajan, 2009).

Budget gaps occur when subordinates involved in budget planning underestimate their productive capabilities when making budget targets. Douglas and Wier (2000) define budgetary slack as the the variance between anticipated performance targets and the actual performance capabilities. The preparation of low budget targets is intended to be easy to achieve, so that it will increase the rewards received by these subordinates (Joshi & Abdulla, 1996; Douglas & Wier, 2000) in (Rahmawati, 2019).

Various previous studies have shown various ways that can be done to reduce budget gap practices in the budgeting process, one of which is informal control. In this case, honesty is an informal control that can be done. Honesty holds significant implications for the development in the budgeting process that can affect the occurrence of budgetary slack. Some studies have highlighted the relationship between manager honesty and budgetary slack, as well as the factors that moderate it.

Previous research conducted by Brunner and Ostermaier (2017) showed that coworker honesty can affect budgetary slack. In addition, another study by Cardinaels (2016) supported by Hannan et al. (2006) highlighted that the existence of information systems will increase management honesty and honesty related to the budget can be improved by reducing information asymmetry. Manager honesty in

disclosing personal information during the budget process is also an important factor. This shows that there is a complex relationship between manager honesty and the practice of creating budgetary slack.

Using a bibliometric approach, this article examines the topic of honesty and budgeting. The measurable and objective benefits of this method help eliminate bias and verify what specialists already know. This study aims to map existing research on honesty in budgeting to help direct future research in this area. This method allows scholars to track changes in the literature related to honesty in budgeting and examine the most frequently cited works, authors, and study topics.

This study attempts to answer the following research questions: First, what are the current trends and status of honesty and budgeting research publications? Second, what are the citation patterns of current honesty and budgeting publications? Third, who are the most popular authors of honesty and budgeting research? Finally, what is the future path of honesty and budgeting research?

LITERATURE REVIEW

Agency Theory

Agency theory provides an explanation of the budgetary slack phenomenon in participatory budgeting (Putra, 2020). Agency theory explains the relationship between the agent (in this case the manager) and the principal (in this case the owner). Masdupi (2005) explains that an agency relationship involves a contractual arrangement wherein one or more individuals, referred to as the principle, engage the services of another individual, known as the agent, to act on their behalf and grant the agent the authority to make decisions in the best interest of the principal. Similarly, the participatory budgeting context contains a relationship between owners who authorize managers to participate in preparing the budget. However, the granting of this authority can often lead to information asymmetry conditions where managers are more aware of local information in the centers of responsibility they manage than the owners. Because of personal interests, managers will deliberately create biases against information on budget needs, resulting in budget gaps. As stated by Anthony and Govindarajan (2007) that the principal has an interest in continuing to develop his company, while the agent has his own personal interests.

Manager Honesty in Budget Reporting

Rahmawati (2019) reveals that honesty is a form of social norm that greatly influences behavior. Meanwhile, Simatupang (2021) defines honesty as honesty, sincerity, or openness from a clean soul which is expressed in a statement, actions and words as an act or confession in accordance with existing facts. In budgeting honest behavior is also required. Honesty was chosen as an informal control to prevent budget gaps because honesty was involved when determining budget targets (Rahmawati, 2019).

Managers act as budget preparers, managers, and reporters. Managers themselves consist of various levels, including top management, middle management, and first-line management. Managers are also placed in each department of the company, such as the human resources department, operations department, finance department, marketing department, and various other departments. In their role as budget managers, a manager must have honest integrity in carrying out their duties and authorities. However, Indjejikian (1999) said, in running a company, The presence of information asymmetry between the principle (owner) and the agent (manager) is an inevitable occurrence that cannot be circumvented.

Information asymmetry often occurs in budgeting practices. A manager often reports information that does not match the actual. Indjejikian (1999) explains that managers frequently own privileged information that might yield advantages for the organisation, including insights into the regional business landscape, encompassing factors such as resource expenses, rival standings, and consumer inclinations. In situations where aims are not congruent, managers may engage in the practise of withholding or misrepresenting confidential information in order to optimise their personal interests. Due to the presence of information asymmetry, organisations frequently depend on managers to disclose their privileged information when engaging in budgeting and planning activities. Managers frequently possess a motivation to intentionally provide inaccurate reports on their confidential information in order to get personal benefits, a behaviour that is correlated with the presence of slack. Consequently, fostering

the inclination of managers to effectively convey their confidential information with honesty throughout the budgeting process is a significant role of a management control system. The practise of providing accurate and unbiased information can lead to a reduction in the allocation of superfluous resources to managers within a firm. This, in turn, has the potential to enhance the firm's decision-making processes related to planning and coordination.

Budgeting

Organizations need a budget as one of the important components in order to survive in carrying out an activity to translate all strategies into short-term and long-term plans and goals. The budget is not only a financial planning and control tool, but also a coordination, communication, performance evaluation and motivation tool (Hansen & Mowen, 2006). Budgeting is the process of making a work plan within one year, expressed in monetary units and other quantitative units. Budgeting may be categorized into two main approaches: participatory budgeting, also known as bottom-up budgeting, and top-down budgeting. Participatory budgeting involves the inclusion of lower-level managers in the process of budget development, giving them opportunities to contribute. On the other hand, top-down budgeting refers to a hierarchical approach where budget decisions are made at higher levels and then cascaded down to lower levels, which is prepared by not involving significant subordinate participation (Halim, 2002).

In preparing a budget for an organization or institution, careful planning is needed. The budget prepared must be in accordance with the needs of each organization or institution to achieve the vision and mission contained in the strategic plan of the organization or institution. This strategic plan will later become a benchmark in achieving the performance of an organization. Therefore, every budget that is prepared must also have a benchmark for the performance that will be achieved (Arno, 2019).

Budgetary Slack

Budgetary slack refers to the variance that arises when subordinates suggest a budget amount that differs from the company's best estimate. Slack is the disparity between the optimal level of resources required efficiently to complete a task and the amount of resources needed is greater so that employees involved in budget preparation create slack to make it easier to achieve their targets (Yandriyan, 2019).

Apart from increasing budget costs, budget slack can also occur when costs are allocated inappropriately or allocated at a lower acquisition price. Hilton in Hermanto (2000) states three main reasons for managers to make budget gaps, a) Individuals commonly hold the belief that their work outcomes will be favourably perceived by their superiors if they successfully meet their budgetary targets. b) Budgetary shortfalls are consistently utilised to address situations of unpredictability, enabling managers to attain their budgetary goals in the event of unforeseen circumstances. c) During the resource allocation process, budgetary plans are frequently subject to reductions.

Manager's Advantage in Budgeting

During the budgeting process, managers (agents) naturally have more information than owners (principles). In this process the owner will continue to try to reduce budget costs (underallocated) and raise targets while the manager will try to propose higher budget costs than they should be (overallocated) and lower targets. Because this is a certainty that will happen, managers often take advantage of the information asymmetry between themselves and the owner to achieve personal goals.

The incentive that managers get for slack can be in the form of achieving targets that are easy to do because the budgeted capacity is underutilized. Easy target setting will lead to excellent performance appraisals. This condition is not in accordance with the fact that optimal allocation must be done with limited resource constraints to meet all stakeholder expectations for services. In this case, overallocated conditions contribute to eliminating other activities, while underallocated conditions contribute to not achieving planned outcomes (Sirat, 2017).

RESEARCH METHODS

This research is literature research on the topic of honesty and budgeting that uses bibliometric methods to categorize and interpret statistics related to publications. Bibliometric methods can be used to predict the development of new technologies and can also be used to measure specific research topics (Bahit & Utami, 2021; Li et al., 2015). More specifically, Bibliometric analysis is a quantitative and statistical strategy used to assess publication patterns, texts, information, and publishing documents, particularly within the realm of scientific literature (Hall, 2011; Bellis, 2009; Daim et al., 2006). Our research will analyze publication trends in the articles studied and detailed information related to publications, including authors, citations, and keyword frequency (Ahmi & Mohamad, 2019; Rusly et al., 2019). Thus, bibliometric methods are useful for analyzing the impact of literature on each discipline.

The retrieval of metadata from the Scopus database was conducted on October 27, 2023 for the sake of this study. We used a keyword search query: Honesty in Budgeting. Scopus data for the past 32 years yielded 38 documents on honesty in budgeting (period 1991-2023). Exporting the metadata in CSV and RIS formats was the next step in the investigation process. After that, we performed frequency analysis in Microsoft Excel, visualized the network with VOSviewer, and developed citation metrics with Harzing's Publish or Perish. This method allowed us to track changes in the literature related to honesty in budgeting and examine the most frequently cited works, authors, and study topics.

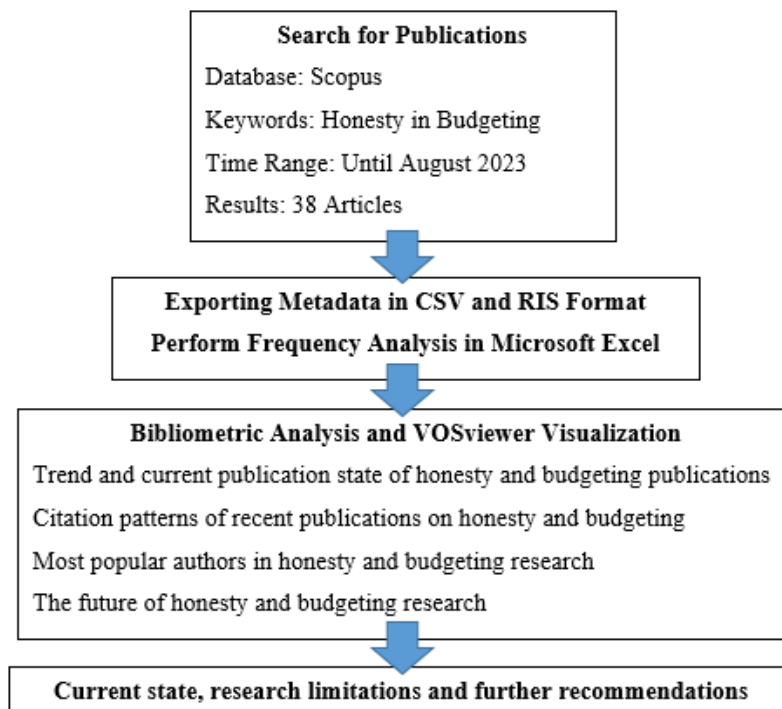


Figure 1. Flowchart of Bibliometric Analysis
Source: Processed data

RESULTS AND DISCUSSIONS

To answer the first research question, we describe trends and publications by year, publication type and source, language, subject area, geographical distribution, and publication affiliation. The publications by year section also identifies total publications cited and average citations per publication. For further understanding, we also display network visualizations in the geographic distribution and affiliation sections.

Table 1 presents the evolution of publications on honesty and budgeting per year from 1991-2023. The development of publications from year to year does not show a significant increase (Table 1). 4

publications were produced in 2023 which is not higher than the publications in 2019. The total publications in 2019 were the highest, with 6 publications (15.79%).

Table 1. Trends of Publication and Citations Per Year

Year	Total Publications	% (N = 38)	Total Publications Cited	Average Citations per Publication
1991	1	2,63	1	1,0
2004	1	2,63	0	0,0
2005	1	2,63	0	0,0
2006	2	5,26	167	83,5
2007	1	2,63	3	3,0
2008	1	2,63	123	123,0
2010	2	5,26	49	24,5
2011	2	5,26	41	20,5
2013	1	2,63	5	5,0
2014	1	2,63	9	9,0
2015	2	5,26	61	30,5
2016	1	2,63	14	14,0
2017	4	10,53	19	4,8
2018	2	5,26	37	18,5
2019	6	15,79	42	7,0
2020	2	5,26	13	6,5
2021	3	7,89	25	8,3
2022	1	2,63	0	0,0
2023	4	10,53	0	0,0
Total	38	100,00	609	359,1

Source: processed data

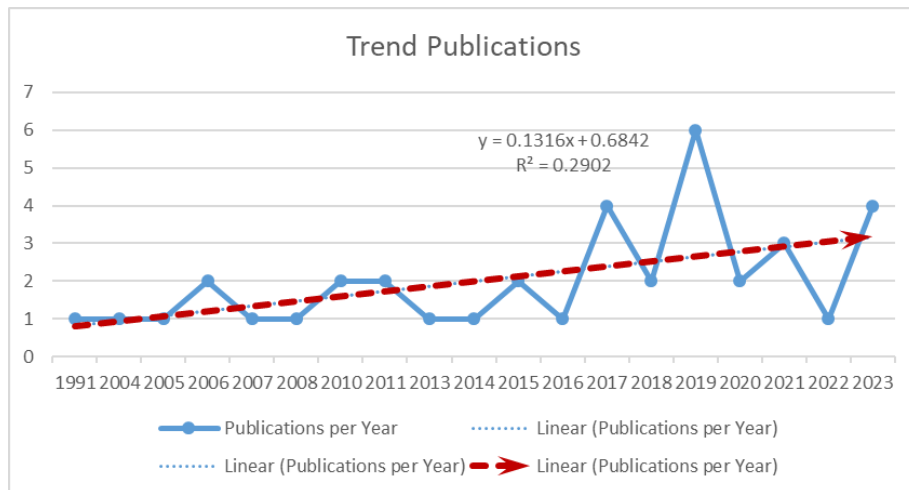


Figure 1. Trend Publications

Source: processed data

The many sorts of documents encompass articles, book chapters, conference papers, and reviews. These documents are sourced from journals, book series, books, and trade magazines. It is vital to acknowledge that conference papers fall under the category of honesty and budgeting document type. Conference papers are classified as a distinct form of document that is typically given at academic conferences. Nevertheless, it is worth noting that these papers have the potential to be disseminated through alternative channels such as journal articles or book chapters within the given source category.

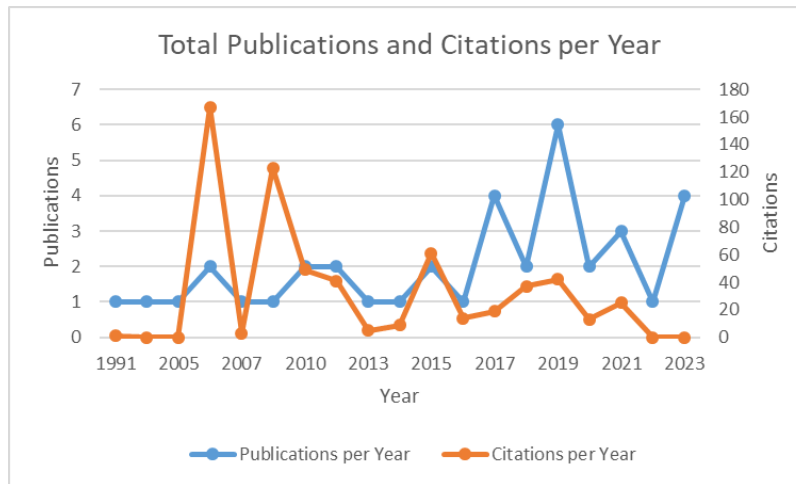


Figure 2. Publication and Citation per Year
Source: processed data

Table 2 reports 4 document types that most of the publications are from articles (81.58%) followed by book chapters (10.53%) while conference papers have a percentage of (5.26%) and the least proportion with a percentage of (2.63%) is reviews.

Table 2. Document Type

Document Type	Frequency	% (N = 38)
Article	31	81,58
Book Chapter	4	10,53
Conference Paper	2	5,26
Review	1	2,63
Total	38	100,00

Source: processed data

Table 3 shows the source documents in an honesty and budgeting research publication. There are 4 sources of documents in honesty and budgeting research publications, namely journals, book series, books, and trade journals. More than half of the total document sources are from journals with a frequency of 31 documents, representing 81.58% of the total publications. This was followed by book series with 5 documents (13.16%). The least contribution comes from books and trade journals with only 1 document each (2.63%).

Table 3. Document Source

Document Source	Frequency	% (N = 38)
Journal	31	81,58
Book Series	5	13,16
Book	1	2,63
Trade Journal	1	2,63
Total	38	100,00

Source: processed data

Table 4 shows the language used in the publications, there are three languages used in research related to this topic. English is the most widely used language, at 94.87%. Other languages such as French and German were also used in honesty and budgeting publications with the remaining 5,13%.

Table 4. Languages Used for Publications

Language	Frequency	% (N = 39)
English	37	94,87
French	1	2,56
German	1	2,56
Total	39	100,00

Source: processed data

Based on the metadata obtained from the Scopus database, there are 71 subject areas related to honesty and budgeting research publications. Table 5 shows the various subject areas of honesty and budgeting research, it can be seen that the subject area is dominated by Business, Management and Accounting. The table shows that honesty and budgeting is a multidisciplinary field of study.

Table 5. Subject Area

Subject Area	Total Publications	% (N = 71)
Business, Management and Accounting	35	49,30
Economics, Econometrics and Finance	12	16,90
Decision Sciences	11	15,49
Social Science	10	14,08
Materials Science	1	1,41
Engineering	1	1,41
Chemical Engineering	1	1,41
Total	71	100,00

Source: processed data

Table 6. Most active sources

Source Title	No. of Document	% (N = 31)
Journal of Management Accounting Research	5	16,13
Accounting Organization and Society	5	16,13
Advances in Management Accounting	4	12,90
Contemporary Accounting Research	3	9,68
Management Accounting Research	2	6,45
Behavioral Research in Accounting	2	6,45
Accounting Overview	2	6,45
Solutions	1	3,23
Public Budgeting Finance	1	3,23
Issues and Perspectives in Management	1	3,23
Polish Journal of Management Studies	1	3,23
Journal of Management Control	1	3,23
International Journal of Accounting Research	1	3,23
Journal of Business Economics	1	3,23
Journal of Business Administration	1	3,23
Total	31	100,00

Source: processed data

Table 6 shows that the most published journal in honesty and budgeting research is the Journal of Management Accounting Research. There are 2 most active sources that have the same total publications, namely from the Journal of Management Accounting Research and from the Accounting and Society

Organization. The two journals published research related to honesty and budgeting as many as 5 publications each or can be said to have contributed 32.26% of the total publications. Furthermore, followed by *Progress in Management Accounting* with a total of 4 publications (12.90%). While those in the last place are those sourced from the *Journal of Business Administration* with 1 publication or 3.23%.

In the publication of honesty and budgeting research, there are 13 countries that have contributed with a total of 45 publications out of 49 publications, while 4 other publications are known that the country is undefined. It can be seen in table 7 that the most dominating country is the United States by supporting as many as 20 publications or 40.82% of the total and interestingly Indonesia is included in the top 5 of the 13 contributing countries.

Table 7. Countries Contributing to the Publication

Country	Publications	% (N=49)
United States	20	40,82
Germany	7	14,29
Undefined	4	8,16
Netherlands	3	6,12
Indonesian	3	6,12
Canada	3	6,12
Austria	2	4,08
United Kingdom	1	2,04
Ukraine	1	2,04
Russian Federation	1	2,04
Norway	1	2,04
Japan	1	2,04
France	1	2,04
Belgium	1	2,04
Total	49	100,00

Source: processed data

Figure 4 shows the author network visualization map by country. In this study, countries were included if they had at least 1 article with at least one citation. Of the 13 countries involved in the honesty and budgeting research, 10 met the threshold. The findings of this study demonstrate that the United States holds a significant level of influence in establishing connections with authors from various countries, with Germany and the Netherlands thereafter exhibiting notable networking capabilities.



Figure 4. Network Visualization of Co-authorship by Country

Source: VOSviewer

In terms of the most influential affiliates, more than half of the total publications came from institutions in the United States (Table 8). Of the 76 institutions that contributed to publications on honesty and budgeting, we took the top 12 affiliations with at least 2 publications included in the table. The institution that published the most research on honesty and budgeting was Georgia State University with 4 publications (10.53%).

Table 8. 12 Affiliations Most Influential to Publications

Affiliate	Negara	Total Publications	% (N = 38)
Georgia State University	United State	4	10,53
Florida State University	United State	2	5,26
The Ohio State University	United State	2	5,26
The University of Tampa	United State	2	5,26
Colorado State University	United State	2	5,26
The University of Arizona	United State	2	5,26
University of Waterloo	Canada	2	5,26
University of Pittsburgh	United State	2	5,26
University of Kentucky	United State	2	5,26
Binghamton University, State	United State	2	5,26
Indiana University Bloomington	United State	2	5,26
University of Central Florida	United State	2	5,26

Source: processed data

Figure 5 shows the collaboration between authoring institutions in research on honesty and budgeting. Of the 76 institutions that contributed to this publication, only 10 institutions have network strength with a total link strength of 9. Interestingly, it was found that although Georgia State University contributed to publishing the most research results, this institution was not included in the network because its total link strength was only 4. The top rank of the network strength of the authoring institutions is the University of Pittsburgh with a total of 2 publications and 7 times cited.

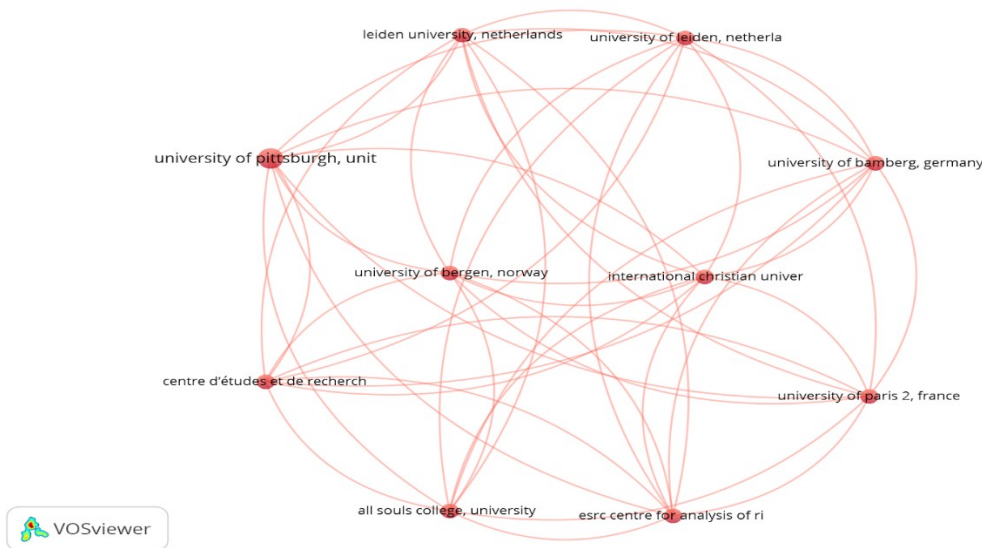


Figure 5. Network Visualization of Co-authorship by Affiliation

Source: VOSviewer

The second research question in this study is related to the citation patterns of recent publications. The purpose of citation patterns is to find which articles have an impact and identify citation patterns. In this study, it was found that R.I Hannan's article entitled "The effect of information systems on honesty in managerial reporting: A behavioral perspective" was most cited with 136 citations.

Citation metrics are presented in Table 9. The table was generated by importing RIS format files sourced from the Scopus database into the Harzing Publish or Perish software. Over a period of 32 years there were 602 citations reported for honesty and budgeting and there were 18.81 citations per year.

Table 9. Citation Metrics

Metrics	Data
Publication years	1991-2023
Citation years	32 (1991-2023)
Papers	38
Citations	602
Citations/years	18.81
Citations/paper	15.84
Authors/paper	1
H-index	12
G-index	224

Source: Harzing`s Publish or Perish

Table 10 shows the 12 articles with the highest amount of citations are presented. The document titled honesty and budgeting by R. I. Hannan in 2006. The work was published in the journal of management accounting research. This article reached the highest number of citations (602 citations or 18,81 citations per year on average).

Table 10. Overview of the Most Cited Publications

No	Author	Title	Year	Cites	Cites Per year	Cites Per Author
1	R. I. Hannan	The effect of information systems on honesty in managerial reportizzor authority on budget proposals	2006	136	8	136
2	F. W Rankin	The Effect of Honesty and Superior Authority on Budget Proposals	2008	122	8,13	122
3	J. Douthit	The robustness of honesty effects on budget proposals when the superior has rejection authority	2015	50	6,25	50
4	J. I. Hobson	Determinants of moral judgments regarding budgetary slack: An experimental examination of pay scheme and personal values	2011	40	3,33	40
5	L. Matuszewski	Honesty in managerial reporting: Is it affected by perceptions of horizontal equity?	2010	31	2,38	31
6	S. E. Salterio	Honesty in accounting and control: A discussion of "The effect of information systems on honesty in managerial reporting: A behavioral perspective"	2006	30	1,76	30
7	H. Y. Abdel Rahim	Information system precision and honesty in managerial reporting: A re-examination of information asymmetry effects	2018	20	4	20
8	A.D. Nikias	The effects of aggregation and timing on budgeting: An experiment	2010	18	1,38	18

No	Author	Title	Year	Cites	Cites Per year	Cites Per Author
9	C. Daumosser	Honesty in budgeting: a review of morality and control aspects in the budgetary slack literature	2018	15	3	15
10	M. Zotova	The use of moocs in online engineering education	2021	14	7	14
11	E. Cardinaels	Earnings benchmarks, information systems, and their impact on the degree of honesty in managerial reporting	2016	14	2	14
12	A. Blay	Why don't people lie? Negative affect intensity and preferences for honesty in budgetary reporting	2019	12	3	12

Source: processed data

The third research question is about the most popular authors in honesty and budgeting research. Honesty and budgeting research is an interesting and important topic in the fields of business, management, and accounting. The number of authors for each publication on this topic is presented in Table 11. From the information provided, it can be seen that publications on research related to honesty and budgeting are predominantly written by 1 author. Furthermore, in table 12 there is information about authors who are popular in research, such as Douglas E. Stevens.

Table 11: Number of authors per document

Author Count	Total Publication	% (N = 38)
1	13	34,21
2	8	21,05
3	11	28,95
4	5	13,16
5	1	2,63
Total	38	100,00

Source: processed data

Table 12: Most productive authors

Author Name	Country	Total Publication	% (N = 38)
Douglas E. Stevens	United State	3	7,89
Martin Altenburger	Germany	2	5,26
Markus Arnold	Switzerland	2	5,26
Jeremy Douthit	United State	2	5,26
Andrea R. Drake	United State	2	5,26
Joseph G. Fisher	United State	2	5,26
Linda J. Matuszewski	United State	2	5,26
Frederick W. Rankin	United State	2	5,26
Steven T. Schwartz	United State	2	5,26
Sean A. Peffer	United State	2	5,26
Richard A. Young	United State	2	5,26

Source: processed data

Figure 6 shows authors are depicted in color-coded groups, indicating collaborative efforts as revealed by the VOS viewer show that the authors collaborated on the honesty and budgeting publication.

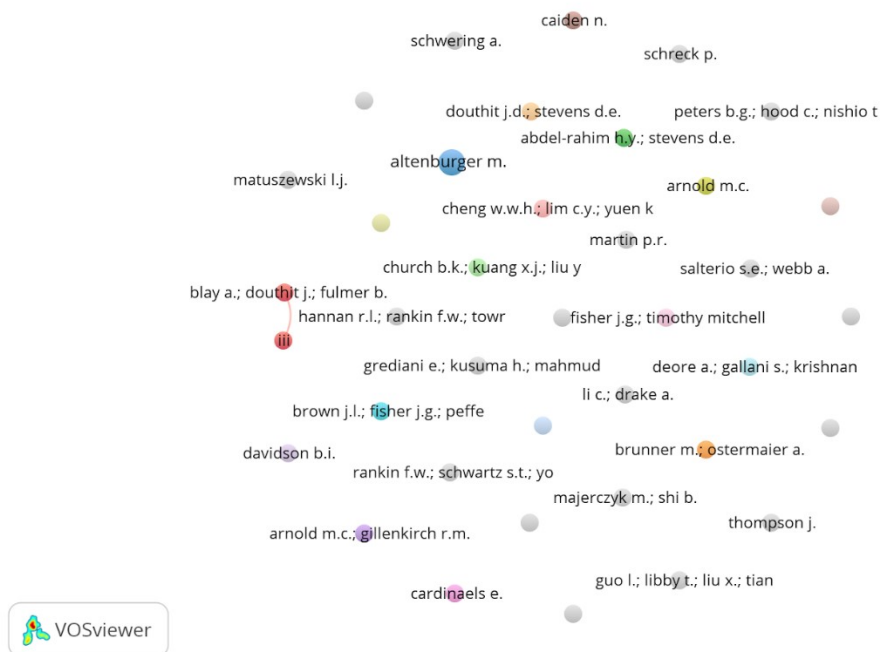


Figure 6. Network Visualization of Co-authorship by Author
Source: VOSviewer

Based on the results of the author's analysis, there are several studies that have been conducted regarding budgeting behavior and honesty. Some studies have analyzed the effect of measurement basis and the benefits of honesty in budget reporting. Some studies have explored the relationship between budget participation, information asymmetry, and budget slack. These studies provide a theoretical framework and research gaps for future research. It is suggested that future research should consider different approaches to explain the inconsistencies between the variables studied. Overall, the search results suggest that there is still ongoing research on honesty and budgeting, and that future research can build on the existing literature to further explore.

Honesty and budgeting keyword analysis refers to the process of analyzing keywords related to honesty and budgeting. In this context, honesty and budgeting keywords can refer to a variety of topics, such as the influence of honesty on budget submissions, information asymmetry, overstatement, and the impact of personal values on the budgetary slack phenomenon. Honesty and budgeting keyword analysis can help in understanding market trends and user behavior related to this topic, as well as help businesses or organizations in optimizing their publications for search. In some studies, honesty and budgeting keyword analysis can also help in understanding the factors that influence budgeting behavior and help in finding solutions to overcome the practice of overstatement and understatement in the budgetary slack phenomenon.

Figure 7 shows the visualization of the co-occurrence network based on the author's keywords. Network visualization regarding the author's keyword relationship in honesty and budgeting research found that there are several keyword clusters related to this topic. This also shows how related the keywords in the research title are to the research topic, whether in similar studies or not. The size of the circle in the figure below shows the intensity of the keyword relationship with the topic of honesty and budgeting, where it is known that honesty and budgetary slack are the keywords with the highest intensity.

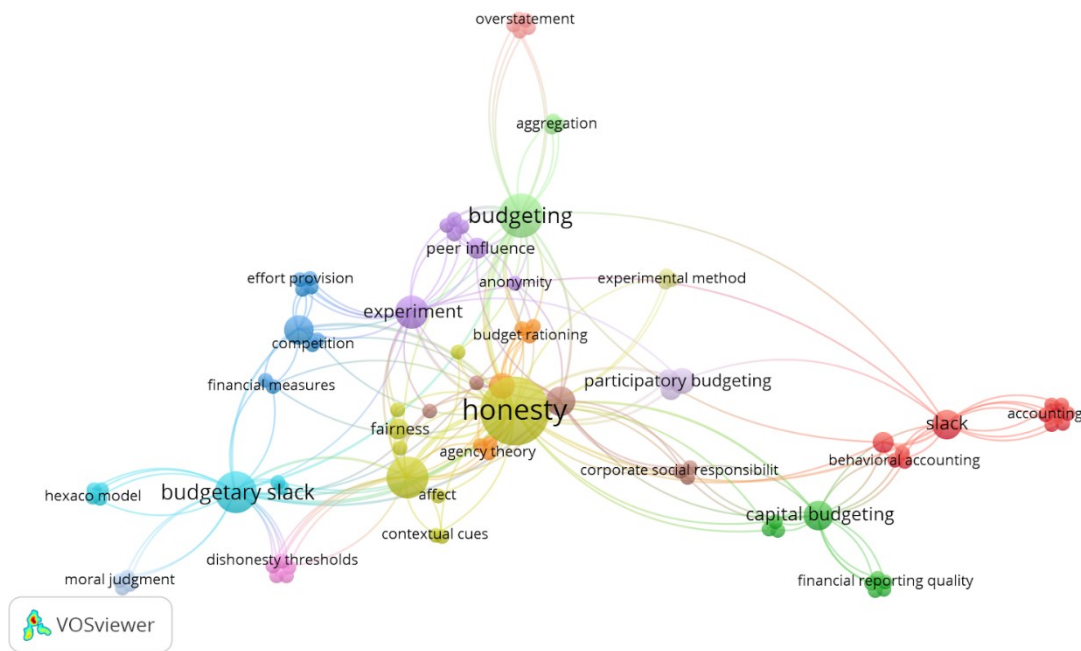


Figure 7. Network Visualization of Co-occurrence Based on Author's Keyword
Source: VOSviewer

Figure 8 shows the network visualization of co-occurrence based on the index keyword. Index is a clue in the form of keywords that are used as search guidelines by information seekers that complete and related information can be found in the selected source. The network linkage on the index keyword resulted in 19 networks.

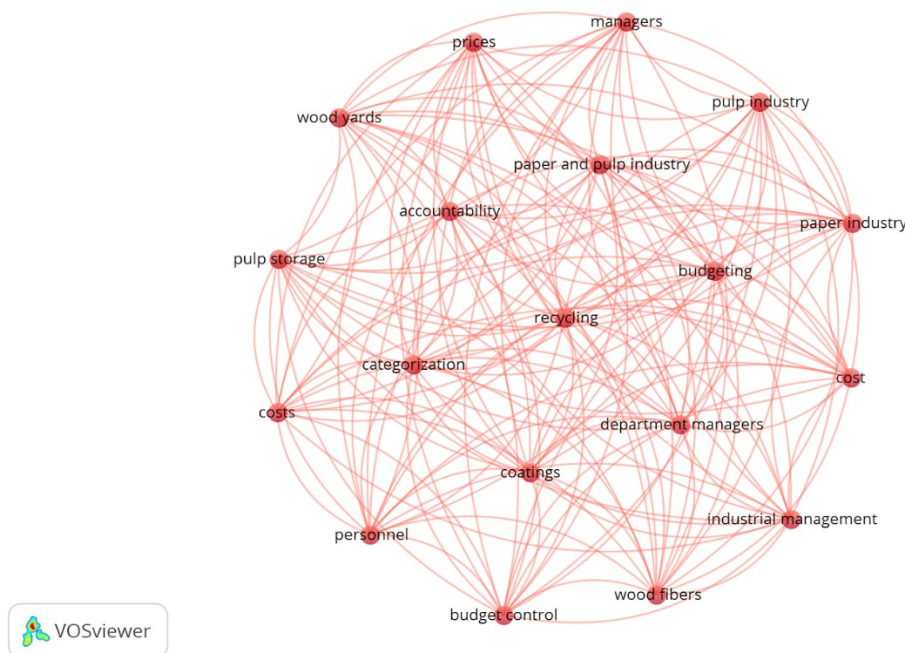


Figure 8. Network Visualization of Co-occurrence Based on Index Keywords
Source: VOSviewer

Themes for the future of honesty and budgeting may include several aspects, such as the influence of managers' honesty on budget submission, budget utilization and reporting, and the impact of personal values on the budgetary slack phenomenon. In the future context, it is important to conduct research and develop solutions to overcome slack practices due to information asymmetry between principal and agent by improving understanding and management of budgeting between the two.

Figures 9 and 10 show the research topics that can be selected for publication. Figure 9 shows the density of keywords while Figure 10 is a yellow visualization of potential future studies related to honesty and budgeting. In this case we identified potential publication themes, namely dishonesty thresholds, budget rationing, trait, effort provision, gift exchange, multitask environment, and overstatement.

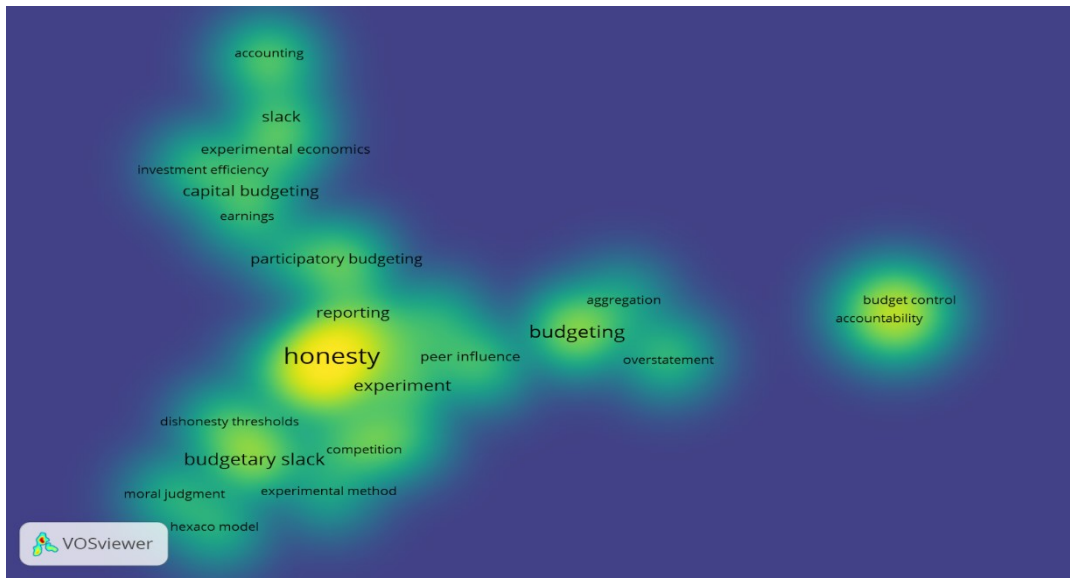


Figure 9. Density Network Visualization of Co-occurrence Based on All Keywords
Source: VOSviewer

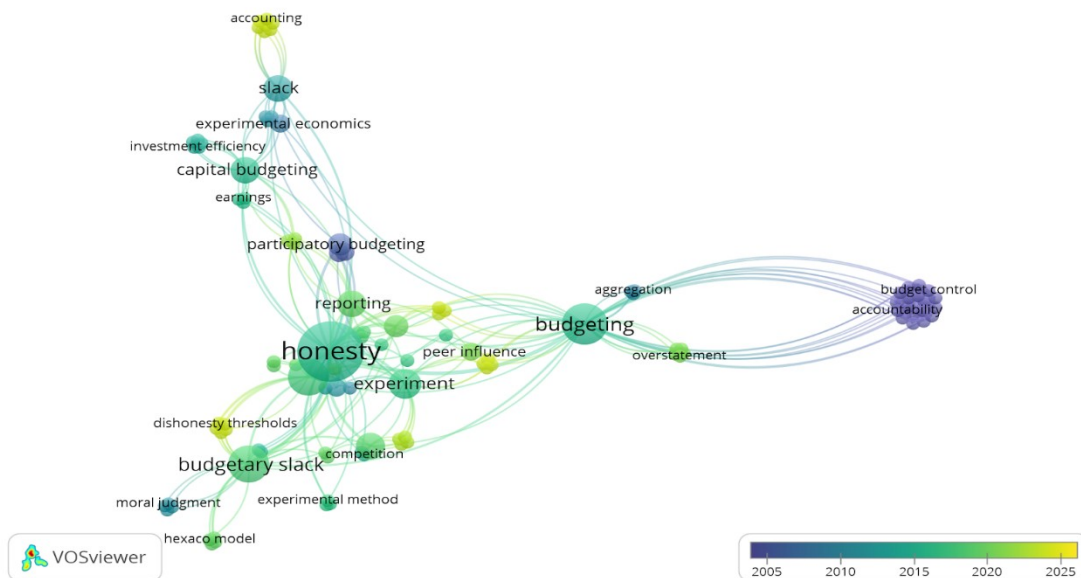


Figure 10. Visualization Map Overlay of Co-occurrence Based on All Keywords
Source: VOSviewer

CONCLUSION

This research uses bibliometric analysis to gain knowledge about current trends and conditions, current citations, most popular authors, and future research around the topic of honesty in budgeting. The first question is about the trend and current state of publication of honesty and budgeting. Naomi Caiden was the first author to publish research on honesty and budgeting in 1991 with the title "Do Politicians Listen to Experts? The Budget Enforcement Act of 1990 and the Capacity to Budget" from California State University, USA. In the 90s there were no other authors who touched on this topic. Until 2004, B. Guy Peters resurfaced this topic with the title of his publication, namely "Higher civil servants: neither mutuality implosion nor oversight explosion". Since then, publications on honesty and budgeting have been slowly increasing. This topic will still be of interest to researchers in the coming years. Most of the honesty and budgeting research has been published in the form of English articles. The Journal of Management Accounting Research is the largest publisher of publications on this topic. Meanwhile, the country that contributes the most to the publication of this research is the United States, in line with the most contributing institution located in the United States, namely Georgia State University. Furthermore, honesty and budgeting research is conducted in the fields of business, management, and accounting, which means that this area of research must be viewed from a multidisciplinary perspective.

The second is about the current citation patterns in honesty and budgeting publications. Articles that get a lot of citations are dominated by research written by 2 to 3 authors. The highest number of citations is the publication of R. Lynn Hannan, Frederick W. Rankin, and Kristy L. Towry in 2010 with 136 citations. In 32 years of publication, there were 38 articles on honesty and budgeting with a total of 602 citations. Therefore, it can be said that R. Lynn Hannan, Frederick W. Rankin, and Kristy L. Towry contributed significantly to the number of citations, which also shows that articles originating from the United States are widely cited. Next up is the most popular author on this research topic. Most publications are written by a single author. In this case, we identified Douglas E. Stevens as the most prolific author in co-authorship. On the other hand, the authors who did most of the co-authorship were from the United States.

In recent years, many studies have focused on the factors of honesty and the effects of honesty on budgeting. However, there is certainly a need for broader and deeper research on honesty and budgeting and how it relates to other aspects of science. After identification by the authors, we found several potential keywords that can be used as future themes, including dishonesty thresholds, budget rationing, trait, effort provision, gift exchange, multitask environment, and overstatement. In this case, we hope that future researchers can use these potential keywords as research themes.

Finally, we also have limitations in this research that need to be addressed. The first is about the database used. The database in this study only comes from one database, namely Scopus. Although Scopus is the largest database, it is possible that there are other journals that are not included in this database. The database that can be used in future research can be extended to other databases, such as World of Science (WoS), EBSCO, Pubmed, and Google Scholar. Secondly, no search query is perfect. However, despite all these limitations, our study has contributed to the bibliometric analysis of the under-researched field of honesty and budgeting. It provides broader knowledge and can be used as a reference to develop knowledge in this field.

REFERENCES

- Anthony, R. N., & Govindarajan, V. (2007). *Management Control System. USA: McGraw-Hill.*
- Ahmi, A., & Mohamad, R. (2019). Bibliometric Analysis of Global Scientific Literature on Web Accessibility. *International Journal of Recent Technology and Engineering*, 7(6), 250–258.
- Arno, A. K. (2019). Penyusunan Anggaran Perspektif Fiqhi Anggaran Hukum Ekonomi Syariah. *Al-Amwal : Journal of Islamic Economic Law*, 1(1), 30–40. <https://doi.org/10.24256/alw.v1i1.625>.
- Bahit, M., & Utami, N. P. (2021). Analisis Bibliometrik untuk Implementasi Perusahaan Perencanaan Sumber Daya (ERP). *Seminar Nasional Manajemen, Ekonomi dan Akuntansi*, 6, 830–834.
- De Bellis, N. (2009). *Bibliometrics and citation analysis: from the science citation index to cybermetrics*. scarecrow press.

- Bellis, N., De. (2009). Bibliometrics and citation analysis: From the science citation index to cybermetrics. *Scarecrow Press, INC*. <https://doi.org/10.1016/c2014-0-00967-7>.
- Brunner, T., & Ostermaier, A. (2017). The impact of colleague honesty on budgetary slack. *Journal of Management Accounting Research*.
- Cardinaels, E. (2016). Earnings benchmarks, information systems, and their impact on the degree of honesty in managerial reporting. *Account. Organ. Soc.* 52, 50–62.
- Daim, T. U., Rueda, G., Martin, H., & Gerdri, P. (2006). Forecasting emerging technologies: Use of bibliometrics and patent analysis. *Technological Forecasting and Social Change*, 73(8), 981–1012. <https://doi.org/10.1016/j.techfore.2006.04.004>.
- Douglas, P. C., & Wier, B. (2000). Integrating ethical dimensions into a model of budgetary slack creation. *Journal of Business Ethics*, 28(3), 267–277.
- Halim, Abdul. (2002). Akuntansi Sektor Publik Akuntansi Keuangan Daerah. *Jakarta: Penerbit Salemba Empat*.
- Hall, C. M. (2011). Publish and perish? Bibliometric analysis, journal ranking and the assessment of research quality in tourism. *Tourism Management*, 32(1), 16–27. <https://doi.org/10.1016/j.tourman.2010.07.001>.
- Hannan, R. L., Rankin, F. W., & Towry, K. L. (2006). The Effect of Non-Contractible Information on Honesty in Managerial Reporting: A Behavioral Perspective. *Contemporary Accounting Research*, 23(4), 885–918.
- Hansen, Don. R & Mowen, M. (2006). Akuntansi Manajemen. *Jakarta: Penerbit Salemba Empat*
- Hilton et.al. (2000). Cost Management Strategic for Bussiness Decision. *New York: Mc. Graw Hill*.
- Huang, C. L., & Chen, M. L. (2009). Relationships among budgetary leadership behavior, managerial budgeting games, and budgetary attitudes: evidence from Taiwanese corporations. *Journal of International Accounting, Auditing & Taxation*, 18(1), 73–84.
- Indjejikian, R. J. (1999). Performance evaluation and compensation research: An agency perspective. *Accounting Horizons*, 13(2), 147-157.
- Rahmawati, E. I. A. (2019). Pengaruh Kejujuran Rekan dan Penghargaan Non Moneter pada Senjangan Anggaran. *Jurnal Akuntansi Dan Keuangan Indonesia*, 16(1), 17–34. <https://doi.org/10.21002/jaki.2019.02>
- Masdupi, E. (2005). Analisis Dampak Struktur Kepemilikan pada Kebijakan Utang dalam Mengontrol Konflik Keagenan. *Jurnal Ekonomi dan Bisnis Indonesia*, 20(1): 57-69.
- Putra, Y. P. (2020). Pengaruh Asimetri Informasi Terhadap Budgetary Slack Dengan Kejujuran Sebagai Variabel Pemoderasi: Penganggaran Partisipatif (Studi Eksperimen Pada Mahasiswa S1 Akuntansi Universitas Muhammadiyah Bengkulu). *Ekombis Review: Jurnal Ilmiah Ekonomi Dan Bisnis*, 8(1), 9–18. <https://doi.org/10.37676/ekombis.v8i1.927>.
- Rankin, F. W., Schwartz, S. T., & Young, R. A. (2008). The effect of honesty and superior authority on budget proposals. *Accounting Review*, 83(4), 1083–1099. <https://doi.org/10.2308/accr.2008.83.4.1083>.
- Sirat, A. F. (2017). Kajian Asimetri Informasi Dalam Penentuan Alokasi Anggaran. *Jurnal Anggaran Dan Keuangan Negara Indonesia (AKURASI)*, 1(1), 13. <https://doi.org/10.33827/akurasi2017.vol1.iss1.art17>.
- Yandriyan. (2019). Pengaruh Partisipasi Anggaran, Komitmen Organisasi, Kapasitas Individu, Kejelasan Sasaran Anggaran, Dan Ketidakpastian Lingkungan Terhadap Senjangan Anggaran. *Rabit: Jurnal Teknologi dan Sistem Informasi Univrab*, 1(1).