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## Bibliometrix Analysis: Trade Process Information Systems in Tangerang Modern Land Market

Novita Trisetyo<sup>1</sup>, Riki<sup>2</sup> <sup>12</sup>Universitas Buddhi Dharma novita171101@gmail.com

## Abstract

Developing an information system that can facilitate the trading process at Pasar Modernland Tangerang. Pasar Modernland Tangerang is a modern market that has various types of traders and products offered to consumers. However, the trading process in this market still faces a number of obstacles, such as a lack of efficiency, lack of transparency, and difficulties in managing trade data. Therefore, this study aims to design and implement an information system that can help improve the trading process at Pasar Modernland Tangerang. Study This aim For develop system information that facilitates the trading process at Pasar Modernland Tangerang. Pasar Modernland Tangerang is a modern market that has various type merchants and products offered to consumer. The research method used in the given text is a systematic literature review. The text describes the process of conducting a bibliometric analysis to identify relevant publications for research. This study used a combination of keywords, filtering by time, type of publication, open access, language, and removal of duplicates to screen studies that fit the research objectives. This helps researchers narrow the range of studies to be synthesized and analyzed(Rojas-Sánchez et al., 2023). The information system designed and implemented in the study aimed to increase efficiency, strengthen transparency, and ease trading data management. The system covered several important features, such as trader registration and profile management, online ordering and payment, inventory management, and trading data reports and analysis. The system was expected to help increase the quality of service for consumers, make it easy for merchants to manage their business, and increase the potential growth of the economy in the market area.

## Keywords: application , bibliometrix analysis, literature review , Market, Marketplace.

## Introduction

Analysis and design system information on the trading process at Pasar Modernland Tangerang is A purposeful research For identify and fix problem happened in the process of trading in the market. Study This involve analysis deep to the existing trade process flow at Pasar Modernland Tangerang, identify problems that arise, as well designing system information that can help optimize the process. In trading process analysis, we will describe the steps taken by the merchant, start from management inventory, purchasing goods, up to sale to customer. In identify problem, we will researching influencing factors efficiency and speed of trading processes, such as inaccuracy management inventory, error in recording transactions, and limitations communication between traders and customers. Based on analysis such, we will identify need system required information, incl must have features There is in system, architecture the most appropriate technology, and aspects necessary security noticed. Besides that, we will also designing a database

<sup>&</sup>lt;sup>2</sup>Coressponden: Riki. Universitas Buddhi Dharma. Jl. Imam Bonjol No 41 Karawaci Ilir-Tangerang 15115. riki@ubd.ac.id

that will used For store transaction data and information customer. In planning system information, we will consider interface intuitive and easy user used, so make it easy trader in operate system. After planning done, system information will implemented and tested try in a manner thorough. Results of trials will evaluated For ensure system can function with good and fulfilling the needs of the users. If found lack or necessary repairs, system will perfected and developed more continue. With exists system effective information, it is hoped that the trading process at Pasar Modernland Tangerang can walk more efficient, accurate, and transparent. (*Analisis Spatial Sistem Layanan Pasar Kota Tangerang*, n.d.; *High Frequency Trading System Design and Process Management*, n.d.)

Application system information that has analyzed and designed for the trading process at Pasar Modernland Tangerang will be give various benefits. First of all, the system information This will increase efficiency operational trader with provide feature automation in management inventory, so they can manage stock goods with more good and avoid lack or excess supplies. Besides it, with exists system integrated information, traders can monitor and track transaction sale with more easy and fast. ((PDF) FACTORS AFFECTING THE USE OF E-MONEY (STUDY ON E-MONEY USER IN CITY OF SOUTH TANGERANG), n.d.)

System information this too will facilitate management transaction payment in a manner electronics, allows customer For do purchase with method more payment flexible, like card credit or bank transfer. this will increase comfort and satisfaction customer as well as give alternative more payment safe and efficient.

Besides it, system information will improve the communication process between traders and customers. Through interface intuitive users, customers can with easy look for information about products sold, check availability goods, and filed question to trader. On the other hand, traders can give information accurate product and reply question customer with more efficient through system this.

Security system information also becomes aspect important in planning this. Precautions like use authentication user and data encryption will be applied For protect information important such as customer and transaction data from threat security. With exists layer good security, system information This can guard confidentiality and integrity of the data contained therein.

As conclusion, analysis and design system trade process information at Pasar Modernland Tangerang aims For increase efficiency and speed of trading processes, improve communication between merchants and customers, as well increase data security and accuracy. With application system the right information, expected this market can become more modern, efficient, and attractive for traders and customers.

Implementation system information This will involve stage mature development and implementation. Development team will Work The same with party related at Pasar Modernland Tangerang for ensure suitability system with the needs and market environment.

At stage implementation, especially formerly system information will tested try in a manner thorough. Trial will involve involving simulation of trading processes traders and customers in scale small. In this process, will checked performance system, the accuracy of the data generated, as well as availability features and functionality that has designed before. Then, test results will evaluated by the team developers and parties related For determine necessary repairs and improvements before system implemented in a manner full.

After trial stage finished and repaired done, system information will implemented to whole traders at Pasar Modernland Tangerang. Implementation process will involve training for traders in order for them can understand and use system with ok. Training This will covers use interface user, management inventory, record keeping transactions, and other existing features in system. Besides that's it, team developers will too give support technical and maintenance routine For ensure performance system stay optimal.

During period implementation, team developer will monitor and evaluate use system information as well as respond input and feed come back from traders and customers. this aim For

ensure system walk with smooth and fulfilling hope as well as need user. If found problem or lack in systems, repairs and adjustments will done in a manner periodically.(Governance & Seedat, n.d.; Saunders, 2016)

With exists system integrated and reliable information, the trading process at Pasar Modernland Tangerang is expected can become more efficient, transparent, and profitable for all involved parties. Besides it, system this too can become reference for development system information similar in other markets, so can increase sector trading in a manner whole.

In more context area, analysis and design system Information on the trading process at Pasar Modernland Tangerang can also be obtained give contribution to development sector trading in a manner whole. Research results and implementation This can become reference for other markets in optimizing the trading process them.

Government area too take benefit from analysis This For repair related policies and infrastructure with the market. Data and information collected through system information can used as base in take more decisions effective, for example in determination allocation source power, planning market development, or policy more trade sided with the traders.

Besides that is, application system efficient and integrated information can also help increase image and power pull Pasar Modernland Tangerang as destination modern and innovative shopping. this can interesting more Lots visitors and potential investors, which in turn will push growth economy local and upgrade chance work.

In the digital era and globalization, system sophisticated and up-to-date information become unnecessary needs unavoidable for modern markets. With exists analysis and design system information on trading processes at Pasar Modernland Tangerang, this market can adapt with changing times, improving Power competitive, and deliver experience spend more Good to traders and customers.(Santoso et al., 2020; Siau et al., 2022)

In in conclusion, analysis and design system trade process information at Pasar Modernland Tangerang is step important in increase efficiency, transparency, and security in trading in that market. Through implementation, maintenance, and continuous development, system information This can become footing For more market development well, as well give benefit for traders, customers, government area and growth economy in a manner whole.

## **Question study**

- 1. Which journals and writers are most influential in the field of trade process information systems in the modernland market in Tangerang ?
- 2. How is the intellectual structure of the research community?
- 3. What are the cooperation networks in the field of trade process information systems at the modernland market in Tangerang ?
- 4. How does the concept of trading process information systems in the modernland tangerang market develop and what are they the most discussed issue in recent work?

The above research questions translate into the following research objectives for now

- 1. To find out trends or patterns of knowledge development in trade process information systems in the modernland market, Tangerang.
- 2. To investigate the structure of knowledge and obtain knowledge synthesis.

The purpose of this bibliometric research is to analyze the trading process information system in the modernland market in Tangerang evaluate and understand trends, focus, and impact related scientific publications theme.

# **Research Method**

## **Biliometric Analysis**

Method bibliometrics is an approach analysis using bibliographic data for identifying, measuring, and analyzing characteristics scientific from related publications with topic certain. In context "Analysis and Design System Trading Process Information at the Tangerang Modernland Market" method bibliometrics can used for seeing trends, contributions, and focus study related system trading process information.(Milojević & Leydesdorff, 2022; Ninkov et al., 2022)

The first step in method bibliometrics is collecting bibliographic data related to topic the. This can involve collection article journals, conferences, books, reports, or other relevant publications. this data can be obtained from an academic database or digital library that stores publication scientific.(Mejia et al., 2021).

Subsequently, bibliographic data was collected will analyzed use device soft bibliometrics, eg bibliometric. Device soft This possible researcher for do analysis statistics and visualization of relevant data with method bibliometrics.

One step important in analysis bibliometrics is identifying and selecting variable key that will be analyzed. In context this, variable relevant key can cover amount related publications with analysis and design system trade process information at Pasar Modernland Tangerang, level collaboration between writer or institutions, journals or the most frequent conferences published in topic this, or the most frequent keyword appear in publication.

Next, device soft bibliometrics will be used for doing analysis descriptive to the bibliographical data collected. This can cover counting frequency publication in period time particular, analysis collaboration between writer or institutions, mapping network collaboration, or most frequent keyword analysis appear in publication.(Hu et al., 2020)

Analysis results bibliometrics This can give valuable insight about development and focus study in field analysis and design system information on trading processes at Pasar Modernland Tangerang. For example, analysis can disclose enhancement amount related publications with topic This in a few years Lastly, level collaboration between writer or the most active institutions, or the most frequent keywords appear in publication.

Besides it, analysis bibliometrics also available give information about journal or most conferences published in topic this. This can help researchers or practitioner in field This For identify source the most reliable information or achievement tall in analysis and design system information on trading processes at Pasar Modernland Tangerang.

In conclusion, method bibliometrics is a useful tool in analysis topics like analysis and design system information on trading processes at Pasar Modernland Tangerang. By using bibliographic and device data soft bibliometrics, research can give outlook about trends, contributions, and focus study in topic this. Analysis This can help direct study further, identify potential collaborations, as well help in election source relevant and reliable information in field this.(Bota-Avram, 2023; Brika, 2022)

## **Eligible Criteria**

Eligible Criteria (Criteria that Meet conditions) for analysis and design system trading process information at Pasar Modernland Tangerang includes a number of aspect important. First, location become factor main, where system information will focused on the trading process that occurs in Pasar Modernland Tangerang. Fulfilled criteria condition will covers related entities direct with the market, like merchants, customers, and parties related to that market.

Besides that is, the trading process will become focus main in determination fulfilling criteria terms. Purchase, sale, management inventory, payment, and related logistics processes will become

part from analysis and design system information. Objective mainly is For improve and speed up these processes with use system efficient information.

Fulfilled criteria conditions will also involve components system relevant information. this covers interface user-friendly user, reliable database and data management, data analysis for get valuable insights, processing fast and accurate transactions, security system For protect sensitive data, as well features required extra For increase efficiency and effectiveness of the trading process.

Analysis and design system information will also consider Modernland Tangerang market characteristics as factor fulfilling criteria terms. understanding about market environment, applicable policies and regulations, as well as need special from this market will become base in planning system appropriate information with market context.

Besides that, the goals and benefits you want will also be achieved become part from fulfilling criteria terms. Enhancement efficiency operational experience more customers, reduction cost, increase transparency, and capability For produce more reports and analysis Good become the factors considered in analysis and design system information.

With consider fulfilling criteria \_condition this, analysis and design system information on the trading process at Pasar Modernland Tangerang can be done with precise focus and clarity, appropriate with specific market needs and characteristics

#### **Information Source**

Dimensions is a sophisticated and comprehensive research platform that offers access wide to various source literature and information related research. No only that, Dimensions also provides biblioshiny, a features that help researchers in analysis bibliometric.

With multiple dimensions, Dimensions combines journal scientific, articles, book, theses, and sources literature other from various discipline science, includes field knowledge nature, social, humanities, medicine, and so on. This give chance to researcher For exploring various topic and earn more understanding comprehensive about field study them.

One feature main of Dimensions is the ability for simplify search relevant literature. User can do search based on title, author, keywords, or topic study certain. Besides that, they also can using filters and options adjustment other For narrow and refine results search them. With so, the researchers can save time and effort in find relevant literature with study them.

Besides access wide to source literature, Dimensions also provides feature very useful biblioshiny for analysis bibliometric. With feature this, researcher can analyze impact study they, like amount citation received by a work or factor influence from writer or journal certain. Besides that, users also can access statistics bibliometrics, eg index h- index, index linkages, and others. this feature possible researcher For evaluate and understand impact study they in more context broad.(Hook et al., 2021)

<u>Biblioshiny</u> in Dimensions also offers Intuitive and interactive data visualization. User can use easy graphs and diagrams understood For visualize trend research, relationship collaborative between researcher, or distribution quote and publication in a field certain. Visualization This help researcher For see description whole and identify pattern or possible trend No seen in a manner direct from raw data.(*Bibliometric Resources - Bibliometric Analysis and Visualization - Subject and Course Guides at University of Illinois at Chicago*, n.d.)

Besides it, Dimensions is also possible collaboration between researchers. User can share literature, data, and notes study with colleagues them , fine in a manner individual nor in group research. This facilitate discussion, exchange of ideas, and more collaboration well among researchers, which in turn can speed up progress research.

Through complete platform and features innovative biblioshiny, Dimensions delivers strong support for researchers For do study they with more efficient and effective. With access wide to

source literature and features analysis sophisticated bibliometrics, Dimensions helps researcher For get more insight in, create significant discoveries, and contributed to progress knowledge in various field science.

Seacrh Strategy	
Database	: <u>Dimensions</u>
Keywords	: "Marketplace" AND "Selling"
Time Range	: 2021 OR 2022 OR 2023
Publication Type	: Article OR Proceeding
Document Type	: All Open Access
Language	: English

## Table 1. Title and abstract search strategy on database dimensions

Keywords	Description queries	The
		abundance of
		documents
"Marketplace"		46,725
Магкерласе		Publications
(" Marketplace" AND "Selling ")	Keyword selection based on title, abstract	1,360
	and keyword search criteria	Publications
(("Marketplace " OR "Commercial		2,642
Center") AND ("Selling" OR "Trading"))		Publications
(("Marketplace " OR "Commercial	Time range selection. With the core	
Center") AND ("Selling" OR " Trading )	objective of detecting trends and	1,098
) Refined by: PUBLICATION YEAR:	perspectives in financial literacy	Publications
(2023 OR 2022 OR 2021 OR 2020 OR	concerning financial behavior, the data	
2019)	includes all publications from 2019 to 2022.	
(("Marketplace " OR "Commercial		
Center") AND ("Selling" OR " Trading )	Publication type selection. Articles,	821
) Refined by: PUBLICATION YEAR: (2023 OR 2022 OR 2021 OR 2020 OR	Preprints, Chapters, Edited Books and	821 Publications
(2023 OR 2022 OR 2021 OR 2020 OR 2019) AND PUBLICATION TYPE:	Monographs were used for further analysis.	Publications
(Article OR Proceeding)		
(("Marketplace " OR "Commercial		
Center") AND ("Selling" OR " Trading )		
) Refined by: PUBLICATION YEAR:		
(2023 OR 2022 OR 2021 OR 2020 OR	Selection of Document type in the form of	534
2019) AND PUBLICATION TYPE:	open access	Publications
(Article OR Proceeding ) AND OPEN		
ACCESS		
(("Marketplace " OR "Commercial		
Center") AND ("Selling" OR " Trading )		
) Refined by: PUBLICATION YEAR:	The choice of language used is English to	202
(2023 OR 2022 OR 2021 OR 2020 OR	facilitate mapping and the number of	383 Publications
2019) AND PUBLICATION TYPE:	articles in English	Publications
(Article OR Proceeding ) AND OPEN		
ACCESS AND LANGUAGE: (ENGLISH)		
(("Marketplace " OR "Commercial		
Center") AND ("Selling" OR "Trading"))		
Refined by: PUBLICATION YEAR: (2023		
OR 2022 OR 2021 OR 2020 OR 2019) AND		377
PUBLICATION TYPE: (Article OR		Publications
Proceeding ) AND OPEN ACCESS AND		
LANGUAGE: (ENGLISH) AND		
DUPLICATE		

"Marketplace": This is the first keyword used to search for studies related to Marketplace. The search was conducted based on the title, abstract, and search criteria for the keyword, and resulted in 46,725 publications relevant to this keyword.

("Marketplace" AND "Selling"): This is a combination of keywords used to narrow down the search by entering the keyword "Marketplace" along with "Selling". These search results yielded 1,360 relevant publications.

(("Marketplace " OR "Commercial Center") AND ("Selling" OR "Trading")): This is a broader combination of keywords that includes a variety of Commercial Centers and also involves the keyword "Trading". These search results yielded 2,642 relevant publications.

Time Range: In this step, research limits the time span to focus on current trends and perspectives on emotional literacy. The selected time span was from 2019 to 2023, which resulted in 1,098 publications.

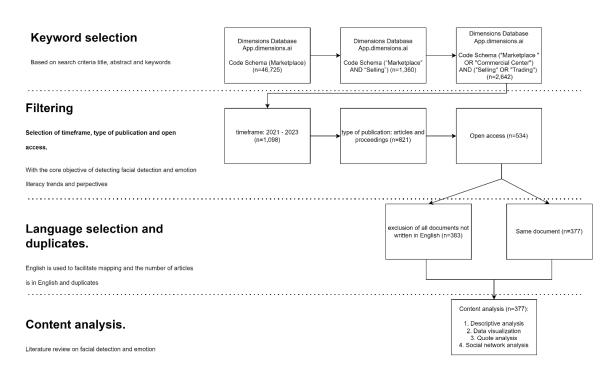
Publication Type: In this step, the research selects certain types of publications for further analysis, namely articles and proceedings. This resulted in 821 relevant publications.

Open Access: In this step, the study selected only publications available in open access, resulting in 534 publications.

Language: In this step, the study selects only publications written in English. This choice is made to facilitate mapping and data analysis. It generated 383 publications.

Duplicate Removal: In the final step, the study removes existing duplicates in search results, leaving only 377 unique publications to be further analyzed.

The steps above illustrate how search uses a combination of keywords, filtration by time, publication type, open access, language, and duplicate removal to filter out studies that fit the research objectives. This helps researchers narrow down the scope of studies to be synthesized and analyzed.



### **Selection process**

Figure 1. Selection process

Steps or processes undertaken in using the Dimensions database to conduct a literature review on marketplace and review. Here is a brief explanation of each step:

- a. Keyword Selection: In this step, a selection of keywords is carried out to search for relevant studies. The keywords used relate to face detection, facial expressions, and emotions.
- b. Filtering: This step involves applying filters to search results to limit publication time, publication type, and open access. The goal is to focus the search on relevant and up-to-date studies.
- c. Language Selection and Duplicate Removal: Studies that are not written in English and duplicates are removed from search results. English language selection is done to facilitate data analysis and mapping.
- d. Content Analysis: This step involves content analysis of the selected document. Content analysis can include descriptive analysis, data visualization, citation analysis, and social network analysis. The goal is to understand trends and perspectives in the literature on face and emotion detection.
- e. Through these steps, researchers can use Dimensions to identify relevant studies, apply filters to narrow the scope of searches, and perform content analysis to gain insight into the topics studied.

## **Data Analysis and Finding**

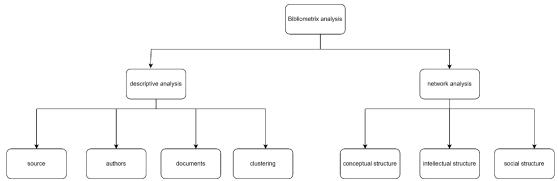


Figure 2. Bibliometrics Levels of Analysis

Describes the two approaches used in analysis bibliometric. These approaches are :

- a. Descriptive Analysis: This approach involves analysis descriptive to give description general about bibliographic data set analyzed. Analysis This descriptive includes information base such as total publications found in database, count publication per year, distribution type document (eg article journals, books, conferences, etc.) ratings authors, journals, or institutions author related publications, and information others provide description general about the bibliographic data analyzed.
- b. Analysis network : Analysis network or network analysis in Bibliometrics describes relation or relationship between entity in bibliographical data set. Analysis network on Bibliometrix can produce a number of types of diagrams, including : diagrams that describe connection between writer publications, A graphic that illustrates the most frequent keywords or topics appears in the post dab diagram illustrating connection between mutual publications refer each other Analysis network in Bibliometrix can also help user identify pattern or trend in publications, as well identify writer prominent, institution or topic, and field expertise.

By using second this approach, analysis bibliometric can give valuable insight about development and focus study in field certain, like analysis and design system trade process information at Pasar Modernland Tangerang, as described in text.

## **Descriptive analysis**

Descriptive analysis explores various dimensions using analytical tools.

## **Three-Fields Plot**

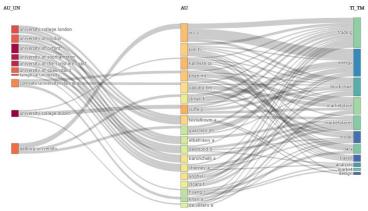


Figure 3 Three-Fields Plot

## Main Information

Description	Results
MAIN INFORMATION ABOUT DATA	
Timespan	2019:2023
Sources (Journals, Books, etc )	1
Documents	377
Annual Growth Rate %	7,13
Document Average Age	1.75
Average citations per doc	7,743
References	1
DOCUMENT CONTENTS	
Keywords Plus (ID)	1
Author's Keywords (DE)	1
AUTHORS	
Authors	1072
Authors of single-authored docs	71
AUTHORS COLLABORATION	
Single-authored docs	71
Co-Authors per Doc	2.97
International co-authorships %	0
DOCUMENT TYPES	
article	377

Table above give several information about the data used in analysis the. Following is explanation for every column in table:

- a. Timespan: Range time data used in analysis, that is from 2019 to 2023.
- b. Sources (Journals, Books, etc): Total source used in study this, with value 1 indicates that only One source used.
- c. Docs: Total analyzed documents as many as 377.
- d. Annual Growth Rate %: Percentage growth annual document in period analyzed time, i.e., by 7.13%.
- e. Document Average Age: Average age analyzed documents is 1.75 years.
- f. Average citations per doc: Average citations per doc, with a value of 7.743 indicates that every document average cited 7,743 times.

- g. References: Total reference used in study this, with value 1 indicates that only One reference used.
- h. Keywords Plus (ID): Number of keywords extra used in analysis, with value 1 indicates exists one keyword addition.
- i. Author's Keywords (DE): The number of keywords specified by the author (DE = Author's Keywords), with value 1 indicates exists one keyword specified by the author.
- j. Authors: The total number of authors involved in study This as many as 1072.
- k. Authors of single-authored docs: Total working writer document in a manner individual without colleague author, that is as many as 71.
- 1. Single-authored docs: Total document written by one writer without exists colleague author, that is as many as 71 documents.
- m. Co-Authors per Doc: Average count colleague author per document, with value of 2.97 indicates that the average document is written by about 2.97 authors.
- n. International co-authorships %: Percentage collaboration writer international, with value 0 indicates that No There is collaboration writer international in study this.
- o. Document Types: Types documents analyzed, i.e., all document is article.

## **Annual Scientific Production**

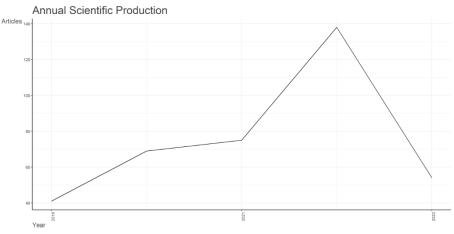


Figure 4. Annual Scientific Production

Picture above show amount articles published on each year from 2019 to 2023. From this data, get observed that amount published articles experience enhancement from year to year. In 2019, there were 41 articles published, then increase to 69 articles by 2020. By 2021, the number article reached 75, increased more carry on to 138 articles by 2022. However, in 2023, the number article experience declines into 54 articles.

This data can give description about trend publication article in field certain during period analyzed time. Enhancement amount article from year to year can reflect enhancement interests and activities study in field the, meanwhile decline amount articles in 2023 maybe can influenced by factors like influence pandemic or change policy publication.



#### Most Relevant Authors

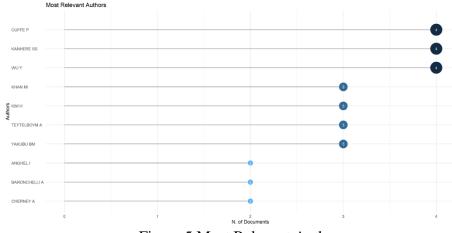
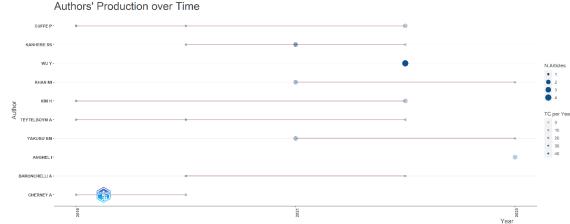


Figure 5 Most Relevant Authors

Picture above give information about the authors involved in research and numbers their articles write. In picture this, us can see the authors involved in study the along amount their articles write. For example, the authors of "CUFFE P", "KANHERE SS", and "WU Y" each wrote 4 articles. this show that they own significant contribution in study the. Next, there is several writers such as "KHAN MI", "KIM H", "TEYTELBOYM A", and "YAKUBU BM" who each wrote 3 articles. Writer with amount more articles low, such as "ANGHEL I", "BARONCHELLI A", and "CHERNEY A", wrote 2 articles each. With information this, us can see contribution relatively every writer in study it and see which author has more contribution big based on amount their articles write.

#### **Authors' Production over Time**





Picture above give information about author and year publication their articles write. In picture this, us can see the authors involved in research and year publication their articles write. For example, the author "ANGHEL I" published articles in 2023, while the author of "BARONCHELLI A" published articles in 2020 and 2022. Author "CHERNEY A" published articles in 2019 and 2020. Besides it, the author of "CUFFE P" published articles in 2019, 2020, and 2022, show involvement they in several publications in period that time different. The author of "KANHERE SS" also published articles in 2020 and 202. With information this, us can see which authors are involved in study in years certain, as well see distribution publication article from every writer.



### **Authors' Local Impact**

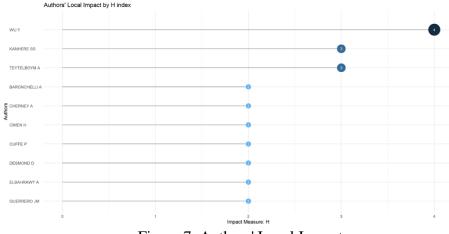
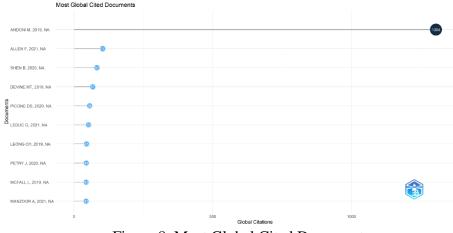
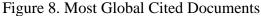


Figure 7. Authors' Local Impact

Picture above give information about a number of elements, incl author and the associated index h with their research do. In picture this, us can see a number of author and the associated index h with study them. For example, the author "WU Y" has h index of 4, indicating that there are 4 publications from writer that has been quoted at least 4 times. Furthermore, the authors of "KANHERE SS" and "TEYTELBOYM A" have h index of 3, which means there are 3 publications from each of the authors who have quoted 3 times. Likewise, writers such as "BARONCHELLI A", "CHERNEY A", "CIMEN H", "CUFFE P", "DESMOND D", "ELBAHRAWY A", and "GUERRERO JM" have h index of 2, indicating that there are 2 publications from each of the authors who have quoted 3 times. Use are 2 publications from each of the authors of 2, indicating that there are 2 publications from each of the authors who have quoted 2 times. With information this, us can see impact and productivity study from each author in matter amount cited publications, as reflected in their h index.



#### **Most Global Cited Documents**



Picture above give information about a number of paper research and the total citations received by each paper the In picture this, us can see a number of paper research and the total number of citations received by each paper the. For example, papers research written by "ANDONI M" in 2019 has received 1304 citations. Paper study others, as written by "ALLEN F" in 2021, received 103 citations, while papers written by "SHEN B" in 2020 received 82 citations. Next, papers studies written by "DEVINE MT", "PICONE DS", "LEDUC G", "LEONG CH", "PETRY J", "MCFALL L", and "MANZOOR A" also received amount significant quotes, with amount citation of each paper range between 67 to 43. With information this, us can see level impact and acceptance paper study the in form amount quote received. The more tall amount quote,

increasingly Lots paper research that refers to papers such, shows more influence and relevance big in community scientific.

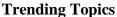
## WordCloud



### Figure 9 word Cloud

Picture above show frequency emergence some keywords in something context that doesn't mention in a manner specific. Following is explanation regarding these words:

- a. Marketplace: Term This refers to the platform or the place where the transaction sell buy between seller and buyer can happened.
- b. Online: This word indicates something related with or done via the internet or online network.
- c. Trading: Terms This refers to activity sell buy or trading asset like stock, currency, or commodity.
- d. Marketplaces: Term This is forming plural from "marketplace" and refers to multiple platforms or place transaction sell buy.
- e. Data: I term This refers to the information collected and processed for give understanding or more insight.
- f. Markets: this refers to a place where sellers and buyers meet for do transaction sell buy.
- g. Study: Terms This refers to an activity study or analysis performed for obtain more understanding in about something topic or phenomenon.
- h. Business: Term This refers to activities or activities carried out for objective commercial, like operate company or effort.
- i. Blockchain: Terms This refers to the technology used for creating and maintain notes decentralized and resistant transactions manipulation.
- j. Selling: Term This refers to activities sell product or service to consumer or customer.



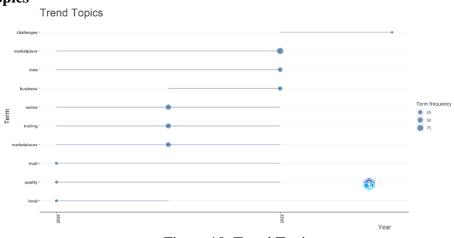




Table above give information about several keywords that appear in a dataset during several years. Following is explanation about every word key in the picture:

- a. Trust: The keyword " trust" appears 9 times in the dataset. Keywords This refers to the concept trustworthiness, reliability, or belief in relevant context with these datasets. Keywords This first appeared in 2020 and last appeared in 2022.
- b. Local: The keyword " local" appears 8 times in the dataset. Keywords This refers to related matters with location or area certain. Maybe datasets the discuss problem or related aspects with activity local. Keywords This first appeared in 2020 and last appeared in 2021.
- c. Quality: The keyword " quality" appears 8 times in the dataset. Keywords This related with draft or attribute quality. Maybe the dataset discusses about enhancement quality, measurement quality, or factors that influence quality. Keywords This first appeared in 2020 and last appeared in 2022.
- d. Online: The keyword " online" appears 53 times in the dataset. Keywords This related with activity or phenomenon that occurs online or via the internet. Maybe the dataset focusses on aspects online business, online commerce, or internet usage in context certain. Keywords This first appeared in 2020, reached peak in 2021, and still appear until year 2022.
- e. Trading: The keyword " trading" appears 45 times in the dataset. Keywords This refers to activities sell buy or trading, mainly in related context with financial markets or specific markets. Maybe the dataset discusses about trading strategies, market analysis, or trend trade. Keywords This first appeared in 2020, reached peak in 2021, and still appear until year 2022.
- f. Marketplaces: The keyword "marketplaces" appears 40 times in the dataset. Keywords This refers to the platform or the place where the goods or service offered and traded between seller and buyer. Maybe the dataset discusses about online marketplaces, e-commerce platforms, or other online market phenomena. Keywords This first appeared in 2020, reached peak in 2021, and still is appear until year 2022.
- g. Marketplace: The keyword " marketplace" appears 92 times in the dataset. Keywords This similar with "marketplaces" however in form single. This refers to the platform or the place where the transaction sell buys done between seller and buyer. Maybe the dataset discusses about various aspect, strategy, or problem related with marketplaces. Keywords This first appeared in 2020 and on appear until year 2022.
- h. Data: The keyword " data" appears 33 times in the dataset. Keywords This refers to information or collected facts or recorded for analysis or use more continue. Maybe the dataset contains data or discuss about data analysis, data managemen, or topic related to other data. Keywords This first appeared in 2020 and continues appear until year 2022.
- i. Business: The keyword " business" appears 28 times in the dataset. Keywords This related

with activity or aspect business. Maybe the dataset discusses about business strategy, business model, development business, or topic related business other. Keywords This first appeared in 2021 and continues appear until year 2022.

j. Challenges: The keyword " challenges" appears 7 times in the dataset. Keywords This refers to a challenge or obstacle in relevant context with these datasets. Maybe the dataset discusses about challenge in business, online commerce, or other related topics with problems encountered. Keywords This first appeared in 2022 and continues appear until year 2023.

## **Co-occurrence** Network

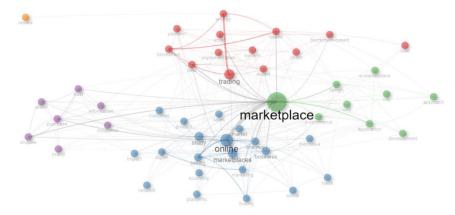


Figure 11. Co-occurrence Network

Picture above displays some nodes (node) in A network or graphics, as well information about clusters (groups), betweenness centrality, closeness centrality, and pagerank centrality of every knot. Following is explanation about every picture above: there is knot with the names "trading", "data", "blockchain" and others. Every knot represent entity or draft certain in context medium network observed.

With information in picture that, you can see roles and characteristics every knot in network. For example, node with high value of betweenness centrality can role as liaison critical between knot other, meanwhile knot with mark high centrality page rank can considered important in context influence and interest in network.

## **Thematic Maps**

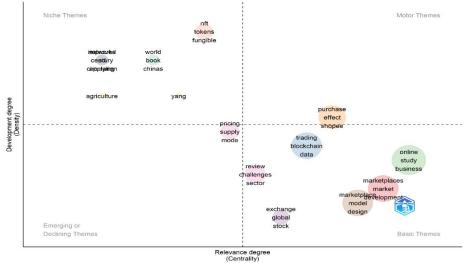


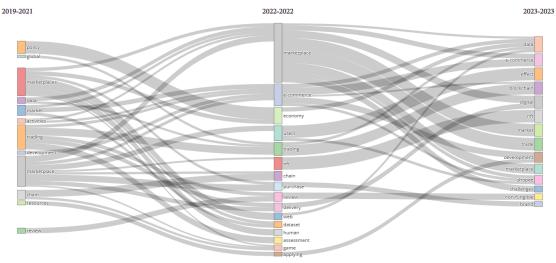
Figure 12. Thematic Map

In this Thematic Map, the first cluster consists of words such as "marketplaces," "market," "development," "web," "platforms," "trade," "economy," "impact," "network," and "electronic." The frequency with which these words appear indicates their importance in the context being analyzed.

By analyzing this Thematic Map, we can see themes that appear in a particular dataset or context. Clustering words by theme helps identify relationships between words that often appear together in a cluster. This table provides insight into the dominant themes in the dataset.

Thus, this Thematic Map provides an overview of the most relevant themes in the context of the analysis based on the frequency of occurrence of related words. This table helps us understand the thematic patterns that appear in the dataset or context being analyzed.

### **Thematic Evolution**



### Figure 13. Thematic Evolution

In this Thematic Evolution, there are several changes in themes or topics from the 2019-2021 period to the 2022-2022 period. For example, "activities" changed to "e-commerce" in that period, and "activities" also changed to "marketplace" with the addition of the theme "financing". The "chain" theme remains from the previous period to the next, with the addition of the "supply" theme in the 2022-2022 period. The theme of "chain" also changed to "game" with the theme of "pricing" and "trading" with the theme of "mode".

Furthermore, the theme of "data" in the 2019-2021 period changed to "marketplace" and involved the theme of "data; sharing" in the 2022-2022 period. In addition, the theme "data" also changed to "trading" with the addition of the theme "iot; decentralized; scheme". The "data" theme was also changed to "users" with the addition of the "experience" theme. The theme "development" in the 2019-2021 period remained and changed to "e-commerce" and "trading" in the 2022-2022 period, with the addition of the themes "development" and "services".

By analyzing this Thematic Evolution, we can see how a theme or topic develops from one period to the next. Such changes reflect a shift in focus or an important shift in the context being analyzed. This table provides an overview of the evolution of a theme or topic that occurred from a certain time period to another.

Thus, Thematic Evolution provides insight into changes in themes or topics that occur over time in the context being analyzed. This table helps us understand changing trends and focus in different time periods.

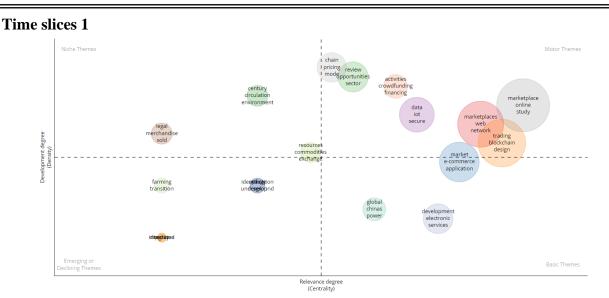


Figure 14. Time Slice 1

In Time Slice 1, there are several keywords that appear in that time period. Words like "marketplaces," "web," "network," "digital," "local," "markets," "platforms," "social," "trade," and "dark" have varying amounts of occurrence.

The keyword "marketplaces" appeared 22 times, making it the most frequently featured keyword in that time period. Other words such as "web," "network," "digital," "local," "markets," "platforms," "social," "trade," and "dark" also appear with varying occurrences, between 8 and 4 times.

Through this Time Slice 1 analysis, we can see the keywords that are most relevant or appear frequently in a specified time period. This table helps us understand the patterns and trends of words that appear in a given time span.

Thus, Time Slice 1 provides an overview of the keywords that are most relevant or appear frequently in that time period. This table helps us identify the dominant keywords in the analyzed time range.

#### Time slices 2

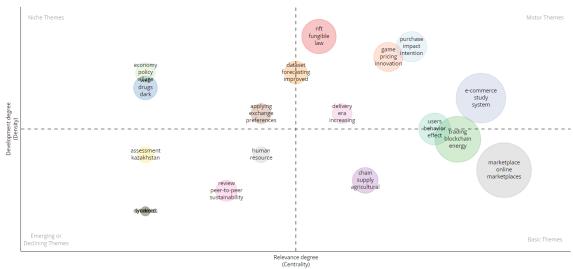


Figure 15. Time Slice 2

In Time Slice 2, there are several keywords that appear in that time period. Words like "nft," "fungible," "law," "tokens," "business," "buying," "gold," "islamic," "perspective," and "token" have varying amounts of occurrence.

Words like "nft," "fungible," "law," and "tokens" appear 4 times or 3 times in that time period. In addition, words like "business," "buying," "gold," "islamic," "perspective," and "token" appeared 2 times in that period.

Through this Time Slice 2 analysis, we can see the words that are most relevant or appear frequently in the specified time period. This table helps us understand the patterns and trends of words that appear in a given time span.

Thus, Time Slice 2 provides an overview of the words that are most relevant or appear frequently in that time period. This table helps us identify the dominant keywords in the analyzed time range.

**Times Slice 3** 

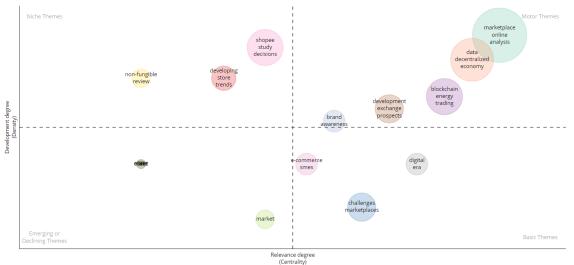


Figure 16. Time Slice 3

In Time Slice 3, there are several keywords that appear in that time period. Words like "developing," "store," "trends," "challenges," "marketplaces," "trade," "blockchain," "based," "energy," and "trading" have varying amounts of occurrence.

The keywords "developing," "store," and "trends" appeared 2 times in that time period. The words "challenges" and "marketplaces" appear 4 times and belong to cluster 2. The words "trade" appear 2 times and belong to cluster 3. Meanwhile, the words "blockchain," "based," "energy," and "trading" appear 4 times and belong to cluster 4.

Through this Time Slice 3 analysis, we can see the keywords that are most relevant or appear frequently in the specified time period. This table helps us understand the patterns and trends of words that appear in a given time span.

Thus, Time Slice 3 provides an overview of the keywords that are most relevant or appear frequently in that time period. This table helps us identify the dominant keywords in the analyzed time range.

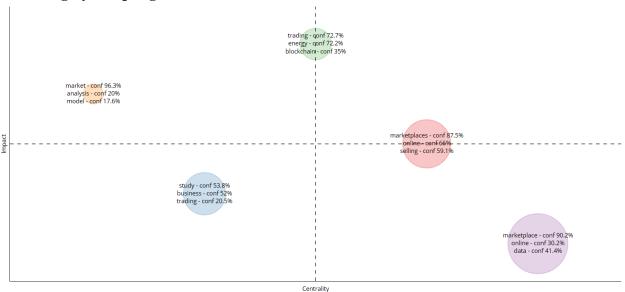
## **Collaboration Network**



## Figure 17. Collaboration Network

In this Collaboration Network, the first cluster consists of Kuswati R and Sholahuddin M, showing a strong collaboration between the two. The second cluster consists of Anghel I and Cioara T, indicating a high level of collaboration between them. Cuffe P and De Villiers A form a third cluster, indicating close collaboration between the two. The fourth cluster consists of Khan MI, Yakubu BM, and Khan A, signifying a strong collaboration between them. Finally, Teytelboym A forms the fifth cluster, demonstrating a high level of collaboration in that context.

By analyzing this Collaboration Network, we can gain insight into collaboration patterns between individuals or entities in the network. Clustering helps identify significant collaborative relationships and shows groups that have a high level of collaboration. This table helps us understand the collaborative relationships that exist in a Collaboration Network.



## **Clustering by Coupling**

Figure 18 Clustering by Coupling

The first cluster consists of the keywords "marketplaces," "online," and "selling" with a frequency of 58 occurrences. The second cluster includes the keywords "study," "business," and "trading" with a frequency of 49. The third cluster consists of the keywords "trading," "energy," and "blockchain" with a frequency of 36.

Furthermore, the fourth cluster consists of the keywords "marketplace," "online," and "data" with a frequency of 81. Finally, the fifth cluster includes the keywords "market," "analysis," and "model" with a frequency of 26.

Through Clustering by Coupling analysis, this table helps identify keyword groups that have a high degree of similarity and relatedness. The frequency of occurrence information also gives an idea of how common keywords appear in each cluster.

Thus, this table provides insight into the cluster structure and the relationship between keywords in the Clustering by Coupling method.

#### Conclusion

The data covers a time of several years with a variety of sources. The number of documents analyzed is quite large, indicating that quite a lot of research has been conducted in that time span. The positive annual growth rate indicates progress in scientific publications. Author collaboration is common, with most documents involving more than one author. However, international collaboration does not appear to have been a significant factor in the research analyzed. The predominant document type is articles, indicating a focus on scientific research.

### References

- Analisis spatial sistem layanan pasar kota Tangerang. (n.d.). Retrieved July 17, 2023, from http://etd.repository.ugm.ac.id/penelitian/detail/22798
- Bibliometric resources Bibliometric Analysis and Visualization Subject and Course Guides at University of Illinois at Chicago. (n.d.). Retrieved July 17, 2023, from https://researchguides.uic.edu/c.php?g=1233392&p=9025976
- Bota-Avram, C. (2023). *Bibliometrics Research Methodology*. 9–13. https://doi.org/10.1007/978-3-031-26765-9\_2
- Brika, S. K. M. (2022). A Bibliometric Analysis of Fintech Trends and Digital Finance. *Frontiers in Environmental Science*, 9, 796495. https://doi.org/10.3389/FENVS.2021.796495/BIBTEX
- Governance, P., & Seedat, H. (n.d.). Plan for Successful System. 2, 48–53.
- *High frequency trading system design and process management.* (n.d.). Retrieved June 23, 2023, from https://dspace.mit.edu/handle/1721.1/55249
- Hook, D. W., Porter, S. J., Draux, H., & Herzog, C. T. (2021). Real-Time Bibliometrics: Dimensions as a Resource for Analyzing Aspects of COVID-19. *Frontiers in Research Metrics and Analytics*, 5. https://doi.org/10.3389/FRMA.2020.595299
- Hu, Y., Yu, Z., Cheng, X., Luo, Y., Wen, C., & Carrera, P. (2020). A bibliometric analysis and visualization of medical data mining research. *Medicine (United States)*, 99(22). https://doi.org/10.1097/MD.00000000020338
- Mejia, C., Wu, M., Zhang, Y., & Kajikawa, Y. (2021). Exploring Topics in Bibliometric Research Through Citation Networks and Semantic Analysis. *Frontiers in Research Metrics and Analytics*, 6, 742311. https://doi.org/10.3389/FRMA.2021.742311
- Milojević, S., & Leydesdorff, L. (2022). Bibliometrics/Scientometrics. *Encyclopedia of Big Data*, 72–75. https://doi.org/10.1007/978-3-319-32010-6\_520
- Ninkov, A., Frank, J. R., & Maggio, L. A. (2022). Bibliometrics: Methods for studying academic publishing. *Perspectives on Medical Education*, 11(3), 173–176. https://doi.org/10.1007/S40037-021-00695-4/TABLES/1
- (PDF) FACTORS AFFECTING THE USE OF E-MONEY (STUDY ON E-MONEY USER IN CITY OF SOUTH TANGERANG). (n.d.). Retrieved July 17, 2023, from https://www.researchgate.net/publication/342607291\_FACTORS\_AFFECTING\_THE\_USE\_OF\_E-MONEY\_STUDY\_ON\_E-MONEY\_USER\_IN\_CITY\_OF\_SOUTH\_TANGERANG
- Rojas-Sánchez, M. A., Palos-Sánchez, P. R., & Folgado-Fernández, J. A. (2023). Systematic literature review and bibliometric analysis on virtual reality and education. In *Education and Information Technologies* (Vol. 28, Issue 1). Springer US. https://doi.org/10.1007/s10639-022-11167-5

Santoso, H., Putra, H. S., & Pratama, A. (2020). PERANCANGAN SISTEM INFORMASI ADMINISTRASI KELURAHAN PADA KELURAHAN PASAR BARU KOTA TANGERANG. *Infotech: Journal of Technology Information*, 5(2), 99–104. https://doi.org/10.37365/JTI.V5I2.71

Saunders, R. P. (2016). Implementation Monitoring and Process Evaluation. Implementation Monitoring and Process Evaluation. https://doi.org/10.4135/9781071878736

Siau, K., Woo, C., Storey, V. C., Chiang, R. H. L., Chua, C. E. H., & Beard, J. W. (2022). Information Systems Analysis and Design: Past Revolutions, Present Challenges, and Future Research Directions. *Communications of the Association for Information Systems*, 50(1), 835–856. https://doi.org/10.17705/1CAIS.05037