

BUSINESS REVIEW

A BIBLIOMETRIC ANALYSIS OF RESEARCH ON CONSUMER BUYING BEHAVIOUR IN 2018 TO 2022 USING VOSVIEWER MAPPING ANALYSIS COMPUTATIONS INDEXED BY GOOGLE SCHOLAR

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ABSTRACT

Purpose: The aim of this study is to focus on bibliometric analysis and the concept of consumer buying behaviour to understand the evolutionary and developmental trends in the field of consumer buying behaviour.

Theoretical framework: Analyzing the consumer buying behaviour in the context of management is necessary and a great opportunity for future research. It is undeniable that consumer buying behaviour is a part of marketing that cannot be overlooked and this study explores the gap in management studies.

Design/methodology/approach: This research method is a bibliographic analysis using data from the Google Scholar database from 2018 to 2022 to provide meaningful insights for further discussions. To collect data, Publish or Perish was used with the central database of Google Scholar. VOSviewer is also used as a tool to get a map of the relationship between authors and between searched keywords. Furthermore, Microsoft Excel is used to process the data and tree mapping from the data obtained.

Findings: According to the findings, a total of 275 articles were published in 2018, 264 articles in 2019, 232 articles in 2020, 191 articles in 2021, and 38 articles in 2022. In addition, the findings demonstrated a significant decline in interest in the discipline of consumer buying behaviour. The network analysis demonstrates five distinct subfields of inquiry regarding consumer buying behaviour. British Food Journal was the most prolific journal in terms of journal analysis for the topic of consumer buying behaviour. In terms of publication output, Wang was the most prolific author throughout the entire period analysed.

Research, Practical & Social implications: The information might be used by professionals, policymakers, and academics to get insight into consumers' purchasing habits. This research traces the development of academic curiosity on consumer buying behaviour and highlights research gaps in this field. By doing a bibliometric analysis, this research adds to the existing body of work on the topic of consumer buying behaviour. The results of this bibliometric study might also be used to inform decisions and policy initiatives about consumer buying behaviour.

Originality/value: The significance of this research is to systematise academic work on consumer buying behaviour and to provide academics and practitioners in the field with a complete review of the theoretical foundations of studies on consumer buying behaviour.

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UMA ANÁLISE BIBLIOMÉTRICA DA PESQUISA SOBRE O COMPORTAMENTO DE COMPRA DO CONSUMIDOR EM 2018 A 2022 USANDO COMPUTAÇÕES DE ANÁLISE DE MAPEAMENTO DO VOSVIEWER INDEXADAS PELO GOOGLE SCHOLAR

RESUMO

Objetivo: O objetivo deste estudo é focar a análise bibliométrica e o conceito de comportamento de compra do consumidor para compreender as tendências evolucionárias e de desenvolvimento no campo do comportamento de compra do consumidor.

Quadro teórico: Analisar o comportamento de compra do consumidor no contexto da gestão é necessário e uma grande oportunidade para a investigação futura. É inegável que o comportamento de compra do consumidor é uma parte do marketing que não pode ser negligenciada e este estudo explora a lacuna nos estudos de gestão.

Design/metodologia/abordagem: Este método de pesquisa é uma análise bibliográfica usando dados da base de dados do Google Scholar de 2018 a 2022 para fornecer informações significativas para futuras discussões. Para coletar dados, Publish ou Perish foi usado com o banco de dados central do Google Scholar. O VOSviewer também é usado como uma ferramenta para obter um mapa do relacionamento entre autores e entre palavras-chave pesquisadas. Além disso, o Microsoft Excel é usado para processar os dados e o mapeamento de árvores a partir dos dados obtidos

Conclusões: De acordo com as conclusões, um total de 275 artigos foram publicados em 2018, 264 artigos em 2019, 232 artigos em 2020, 191 artigos em 2021 e 38 artigos em 2022. Além disso, os resultados demonstraram um declínio significativo no interesse na disciplina do comportamento de compra do consumidor. A análise da rede demonstra cinco subcampos distintos de inquérito sobre o comportamento de compra dos consumidores. O British Food Journal foi o jornal mais prolífico em termos de análise de periódicos para o tópico do comportamento de compra dos consumidores. Em termos de produção de publicação, Wang foi o autor mais prolífico ao longo de todo o período analisado.

Investigação, implicações práticas e sociais: A informação pode ser utilizada por profissionais, legisladores e acadêmicos para obter informação sobre os hábitos de compra dos consumidores. Esta pesquisa traça o desenvolvimento da curiosidade acadêmica sobre o comportamento de compra do consumidor e destaca lacunas de pesquisa neste campo. Ao fazer uma análise bibliométrica, esta pesquisa contribui para o corpo de trabalho existente sobre o tema do comportamento de compra do consumidor. Os resultados deste estudo bibliométrico também podem ser usados para informar decisões e iniciativas políticas sobre o comportamento de compra dos consumidores.

Originalidade/valor: O significado desta pesquisa é sistematizar o trabalho acadêmico sobre o comportamento de compra do consumidor e proporcionar aos acadêmicos e profissionais da área uma revisão completa dos fundamentos teóricos dos estudos sobre o comportamento de compra do consumidor.

Palavras-chave: Bibliométrico, Análise de Mapeamento Computacional, Comportamento de Compra do Consumidor, Dados de Mapeamento, VOSviewer.

UN ANÁLISIS BIBLIOMÉTRICO DE LA INVESTIGACIÓN SOBRE EL COMPORTAMIENTO DE COMPRA DE LOS CONSUMIDORES EN 2018 A 2022 UTILIZANDO CÁLCULOS DE ANÁLISIS DE MAPAS DE VOSVIEWER INDEXADOS POR GOOGLE SCHOLAR

RESUMEN

Objetivo: El objetivo de este estudio es centrarse en el análisis bibliométrico y el concepto de comportamiento de compra del consumidor para comprender las tendencias evolutivas y de desarrollo en el campo del comportamiento de compra del consumidor.

Marco teórico: Analizar el comportamiento de compra del consumidor en el contexto de la gestión es necesario y una gran oportunidad para futuras investigaciones. Es innegable que el comportamiento de compra del consumidor es una parte del marketing que no puede ser pasada por alto y este estudio explora la brecha en los estudios de gestión.

Diseño/metodología/enfoque: Este método de investigación es un análisis bibliográfico que utiliza datos de la base de datos de Google Académico de 2018 a 2022 para proporcionar información significativa para futuras discusiones. Para la recolección de datos se utilizó Publish or Perish con la base de datos central de Google Académico. VOSviewer también se utiliza como una herramienta para obtener un mapa de la relación entre los autores y entre las palabras clave buscadas. Además, Microsoft Excel se utiliza para procesar los datos y la asignación de árbol a partir de los datos obtenidos.

Hallazgos: Según los hallazgos, se publicaron un total de 275 artículos en 2018, 264 artículos en 2019, 232 artículos en 2020, 191 artículos en 2021 y 38 artículos en 2022. Además, los hallazgos demostraron una disminución significativa en el interés en la disciplina del comportamiento de compra de los consumidores. El análisis de la red muestra cinco subcampos de investigación distintos en relación con el comportamiento de compra

de los consumidores. British Food Journal fue la revista más prolífica en términos de análisis de revistas para el tema del comportamiento de compra de los consumidores. En términos de producción de publicaciones, Wang fue el autor más prolífico durante todo el período analizado.

Investigación, implicaciones prácticas y sociales: La información puede ser utilizada por profesionales, responsables políticos y académicos para obtener información sobre los hábitos de compra de los consumidores. Esta investigación rastrea el desarrollo de la curiosidad académica sobre el comportamiento de compra de los consumidores y resalta las brechas de investigación en este campo. Mediante un análisis bibliométrico, esta investigación se suma al trabajo existente sobre el tema de la conducta de compra del consumidor. Los resultados de este estudio bibliométrico también podrían utilizarse para fundamentar las decisiones e iniciativas normativas sobre el comportamiento de compra de los consumidores.

Originalidad/valor: La importancia de esta investigación es sistematizar el trabajo académico sobre el comportamiento de compra de los consumidores y proporcionar a los académicos y profesionales en el campo una revisión completa de los fundamentos teóricos de los estudios sobre el comportamiento de compra de los consumidores.

Palabras clave: Bibliométrico, Análisis de Mapas Computacionales, Comportamiento de Compra del Consumidor, Datos de Asignación, VOSviewer.

INTRODUCTION

Given the rapid development of consumer buying behaviour research, this research on consumer buying behaviour is required as a foundation for evaluating quality improvement policies that take trends and research issues into account. The availability and dependability of data from scientific research activities is critical for evaluating research results. To evaluate research results, investigate the interactions between research results, and analyze the mapping of marketing fields to track the development of new knowledge in certain fields, as well as future indicators in providing competitive advantage and in making strategic plans, thus bibliometric studies should be carried out (Al Husaeni & Nandiyanto, 2022; Nandiyanto & Al Husaeni, 2021). Therefore, the goal of this study is to conduct a bibliometric analysis of the research field of consumer buying behaviour. In spite of the fact that research on consumer buying behaviour is expanding, this bibliometric study is being performed to address the dearth of literature on the issue. By using keywords (co-words), a bibliometric study was conducted to look at how many international articles were published each year and how the topic of consumer buying behaviour was studied internationally.

METHODOLOGY

The information we gathered for this article came from secondary sources. Information found in the Google Scholar database was specifically evaluated. From an ergonomic aspect, it's free, that's why we utilise it. However, we plan to try to build from Scopus data in our future investigations. We looked at content with the term "consumer buying behaviour" from 2018 to 2022. VOSviewer's bibliometric mapping was used to create theme-specific visualisations of

all collected data. The term "consumer buying behaviour" was used to search the scholarly literature. To get the best results while looking for papers on Google Scholar, we turned to Publish or Perish, which has been shown to be the most efficient method of doing so (Baneyx, 2008). The original search yielded a total of 1000 items. All relevant article data, including titles, authors, affiliations, abstracts, keywords, and references, is collected and presented in Research Information Systems (RIS) format. The RIS file that is produced may then be utilised in further analyses. The information was kept in RIS format for storage. In the first phase, we made sure that all of the necessary information for the journal articles was present and correct (publication year, volume number, issue number, page number, etc.). Articles were sorted by year, publication location, and publishing house thanks to data analysis. In this research, PoP software (Baneyx, 2008; Parmar, Ganesh, & Mishra, 2019) was used to conduct the bibliometric analysis. However, Vosviewer software is used to analyse and visualise bibliometric networks (Martinez-López, Merigó, Gázquez-Abad, & Ruiz-Real, 2019; Shukla, Merigó, Lammers, & Miranda, 2020). VOSviewer is popular because it can quickly process massive datasets and provide several insightful visualisations, analyses, and explorations (van Eck & Waltman, 2010). Vosviewer may also be used to construct keyword maps based on shared networks, as well as publication maps, author maps, and journal maps.

RESULTS AND DISCUSSION

When it comes to analysing, visualising, and examining enormous datasets, bibliometric analysis is one of the most effective approaches. Bibliometric analysis was used in this article to learn about buying decisions made by consumers.

Publication Data Search Results Using Publish or Perish (PoP) Software

Through the use of the VOSviewer programme, the output generated by the PoP software is analysed to identify the most frequently occurring keywords. However, depending on the requirements of data collection and analysis, the total number of frequently occurring keywords can vary. Bibliometric maps may be seen in stunning detail using VOSviewer. This programme displays bibliometric mapping in a number of visual formats, including the network diagram, the overlay diagram, and the density diagram. The GS database was queried for a total of 1000 items. Using the GS database and the key phrase "consumer buying behaviour" from 2018–2022, we can reliably verify this information. Initial findings include around 1000

articles with 103657 citations (20731.40 citations annually). The complete results of metric data comparison from initial search can be seen in Table 1.

Table 1. Citation of Consumer Buying Behaviour Publication Data.

Publication years 2018-2022 Citation years 5(2018-2022) Papers 1000 Citations 103657 Cites/year 20731.4 Cites/paper 104.07 Authors/paper 2.96 h-index 147 g-index 243 hI, norm 82 hI, annual 16.4	Description	Data
Papers 1000 Citations 103657 Cites/year 20731.4 Cites/paper 104.07 Authors/paper 2.96 h-index 147 g-index 243 hI, norm 82	Publication years	2018-2022
Citations 103657 Cites/year 20731.4 Cites/paper 104.07 Authors/paper 2.96 h-index 147 g-index 243 hI, norm 82	Citation years	5(2018-2022)
Cites/year 20731.4 Cites/paper 104.07 Authors/paper 2.96 h-index 147 g-index 243 hI, norm 82	Papers	1000
Cites/paper 104.07 Authors/paper 2.96 h-index 147 g-index 243 hI, norm 82	Citations	103657
Authors/paper 2.96 h-index 147 g-index 243 hI, norm 82	Cites/year	20731.4
h-index 147 g-index 243 hI, norm 82	Cites/paper	104.07
g-index 243 hI, norm 82	Authors/paper	2.96
hI, norm 82	h-index	147
,	g-index	243
hI, annual 16.4	hI, norm	82
,	hI, annual	16.4
hA-index 70	hA-index	70

Source: Prepared by Authors (2023)

From the Google Scholar database, we pulled the results of our search for publication data pertaining to consumer buying behaviour, which yielded a total of one thousand articles. Each article utilised for analysis in this research fulfilled the requirements. Title, year of publication, author's name, journal name, amount of citations, and GS Rank are all examples of metadata gleaned from this study. Data on consumer buying behaviour collected for this study are shown in Table 2. The 20 most-cited papers were used to generate data samples.

Table 2. Sample of Bibliometric Article Journal.

Sl. No	Cites	Authors	Title	Year	Journal	GS Rank	Cites Per	Cites Per Author
- 10							Year	
1	2560	JS Swarbrooke	Consumer behaviour	2022	Encyclopedia of Tourism Management and Marketing	34	2560	2560
2	2003	M De Mooij	Consumer behavior and culture: Consequences for global marketing and advertising	2019	Consumer Behavior and Culture	911	500.75	2003
ß	1469	H He, L Harris	The impact of Covid-19 pandemic on corporate social responsibility and marketing philosophy	2020	Journal of business research	435	489.67	735
4	735	J Egan	Marketing communications	2022	Marketing Communications	994	735	735
5	713	E Pantano, G Pizzi, D	Competing during a pandemic?	2020	Journal of Business research	692	237.67	178

		Scarpi, C Dennis	Retailers' ups and downs during the COVID-19 outbreak					
6	706	S Aday, MS Aday	Impact of COVID-19 on the food supply chain	2020	Food Quality and Safety	596	235.33	353
7	609	J Blythe, Z Sethna	Consumer behaviour	2019	Consumer Behaviour	47	152.25	305
8	573	IAD Indriani, M Rahayu, D Hadiwidjojo	The influence of environmental knowledge on green purchase intention the role of attitude as mediating variable	2019	International Journal of Multicultural and Multireligious Understanding	915	143.25	191
9	554	D Jaiswal, R Kant	Green buyingbehaviour: A conceptual framework and empirical investigation of Indian consumers	2018	Journal of Retailing and Consumer Services	53	110.8	277
10	472	SK Ariffin, T Mohan, YN Goh	Influence of consumers' perceived risk on consumers' online purchase intention	2018	Journal of Research in Interactive Marketing	933	94.4	157
11	460	KF Yuen, X Wang, F Ma, KX Li	The psychological causes of panic buying following a health crisis	2020	International journal of environmental research and public health	65	153.33	115
12	440	M Vanhuele, M Wright, J Singh, R East	Consumer behaviour: Applications in marketing	2021	Consumer Behaviour	79	220	110
13	398	MC Hall, G Prayag, P Fieger, D Dyason	Beyond panic buying: consumption displacement and COVID-19	2020	Journal of Service Management	308	132.67	100
14	397	LM Heidbreder, I Bablok, S Drews, C Menzel	Tackling the plastic problem: A review on perceptions, behaviors, and interventions	2019	Science of the total environment	861	99.25	99
15	393	T Islam, AH Pitafi, V Arya, Y Wang, N Akhtar	Panic buying in the COVID-19 pandemic: A multi-country examination	2021	Journal of Retailing and Consumer Services	240	196.5	66
16	391	S Mehta, T Saxena, N Purohit	The new consumer behaviour paradigm amid COVID-19:	2020	Journal of health management	45	130.33	130

			permanent or					
			transient?					
17	362	M Loxton, R	Consumer	2020	Journal of risk and	30	120.67	72
1 /	302	Truskett, B	behaviour during	2020	financial	30	120.07	12
		Scarf, L	crises: Preliminary		management			
		Sindone	research on how		management			
		Silidolle	coronavirus has					
			manifested					
			consumer panic					
			buying, herd					
			mentality,					
			changing					
			discretionary					
			spending and the					
			role of the media					
			in influencing					
			behaviour					
18	360	L Eger, L	The effect of	2021	Journal of	17	180	90
10	300	Komárková,	COVID-19 on	2021	Retailing and	1 /	100	90
		D Egerová, M	consumer		Consumer Services			
		Mičík			Consumer Services			
		IVIICIK	shopping behaviour:					
			Generational					
19	357	F Bonetti, G	cohort perspective	2018	A remonted modity	286	71.4	119
19	337	Warnaby, L	Augmented reality and virtual reality	2018	Augmented reality and virtual reality	200	/1.4	119
		Quinn						
		Quilli	in physical and		in physical and			
			online retailing: A review, synthesis		online retailing: A review, synthesis			
			and research		and research			
			and research					
20	354	HJ Park, LM	Exploring	2020	agenda Journal of	400	118	177
20	334	Lin	attitude-behavior	2020	Business Research	400	110	1 / /
		LIII	gap in sustainable		Dusiliess Resealell			
			consumption:					
			Comparison of					
			recycled and					
			upcycled fashion					
			products					
			products					

Source: Prepared by Authors (2023)

The following table (Table 3) displays the development of research on consumer buying behaviour as published in journals indexed by Google Scholar. From 2018-2022, there will be a total of one thousand journal articles published about consumer buying behaviour, as shown in Table 3. There were a total of 275 papers published in 2018, 264 pieces published in 2019, 232 articles published in 2020, 191 articles published in 2021, and 38 articles published in 2022, as shown in the table. The lowest amount of studies on consumer behaviour were published in 2022. This demonstrates a declining body of literature on consumer buying behaviour, which has piqued the curiosity of many academics.

Table 3. Development of Consumer Buying Behaviour Research.

No.	Years	Total per year
1	2018	275
2	2019	264
3	2020	232
4	2021	191
5	2022	38
Total		1000

Source: Prepared by Authors (2023)

The top 7 publishers who publish articles on this topic are presented in Table 4.

Table 4. Top 7 Publishers Who Publish Consumer Buying Behaviour Topic

No.	Publisher	Articles
1	Elsevier	311
2	Emerald	168
3	MDPI	115
4	Wiley Online Library	75
5	Taylor & Francis	71
6	Springer	43
7	Sage	30

Source: Prepared by Authors (2023)

Journals that have relevant articles are presented in Table 5.

Table 5. Top 10 Journals that have Relevant Articles on Consumer Buying Behaviour Topic

Sl.	Journal	Number of Articles	Total citations
5	British Food Journal	25	9910
2	Journal of Retailing and Consumer Services	23	8767
7	Food quality and preference	20	10180
9	International Journal of consumer studies	20	8004
1	International Journal of Consumer Studies	14	7213
4	Asia Pacific Journal of Marketing and Logistics	14	5440
3	Appetite	12	8047
6	European Journal of Marketing	12	6433
8	International journal of organizational analysis	11	6704
10	International Journal of Retail & Distribution Management	10	3797

Source: Prepared by Authors (2023)

Visualization Consumer Buying Behaviour Topic Area using VOSviewer

Figure 1 presents a density visualisation mapping analysis of studies of consumer buying behaviour between the years 2018 and 2022. Figure 1 shows that the most densely packed set of words pertains to studies of consumer buying behaviour, namely the intent to buy. According to the density map, keywords that are more densely represented by larger yellow circles appear more often, whereas those whose colours blend into the green backdrop appear less often (Al Husaeni & Nandiyanto, 2022).

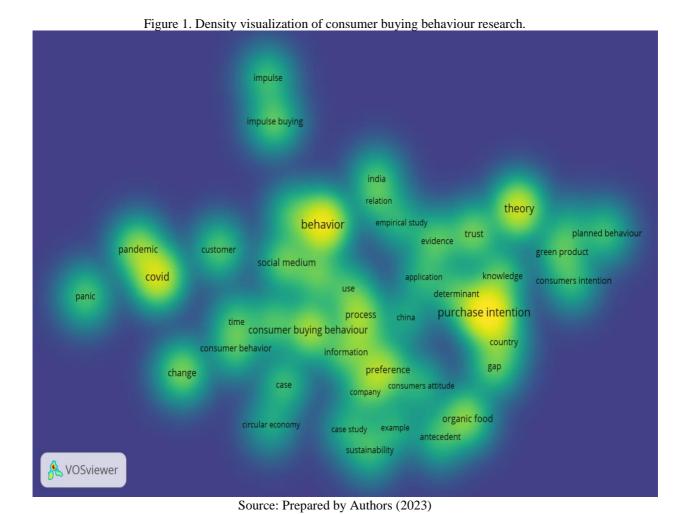


Figure 2 is a mapping network visualisation analysis showing how a number of different topics have been linked to studies of consumer buying behaviour over the last five years. These interrelated nouns describe several methods used to study consumers' buying behaviour. As a result, we may delve further into other concepts important to the study of consumers' buying behaviour.

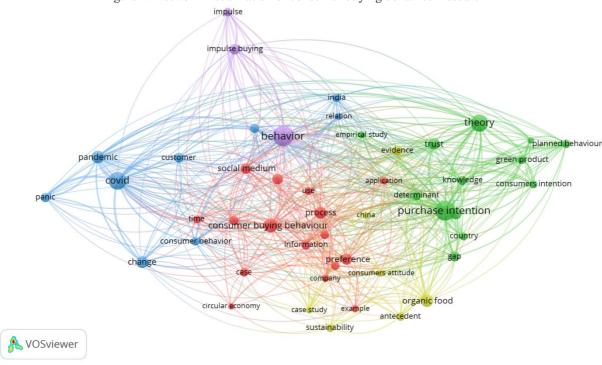


Figure 2. Network visualization of consumer buying behaviour research

Source: Prepared by Authors (2023)

The results of the visualization of the co-word map network of research developments regarding consumer buying behaviour are divided into 5 clusters as shown in Figure 3 below.

- Cluster 1. The red color consists of 16 items including application, brand, case, circular economy, company, consumer buying behaviour, example, information, order, person, preference, price, process, social media, time and use.
- Cluster 2. Green color consists of 13 items including consumers intention, country, determinant, empirical study, gap, green product, knowledge, planned behaviour, purchase intention, theory, trust and willingness.
- Cluster 3. Blue color consists of 9 items including change, consumer behavior, covid, customer, india, pandemic, panic, relation and risk.
- Cluster 4. Yellow color consists of 7 items, namely antecedent, case study, china, consumers attitude, evidence, organic food and sustainability.
- Cluster 5. Purple color consists of 3 items including behavior, impulse and impulse buying.

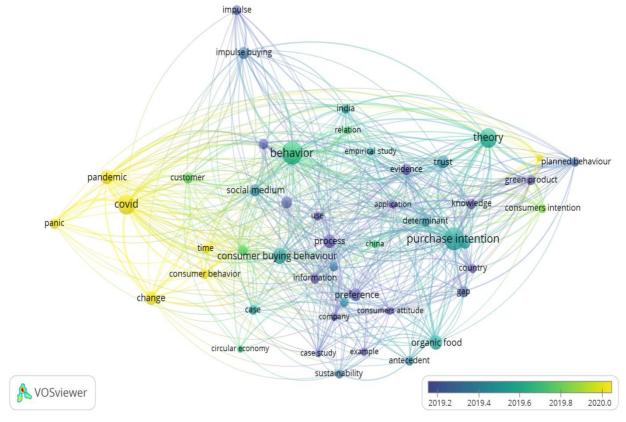


Figure 3. Overlay visualization from co-word

Source: Prepared by Authors (2023)

Authors and Co-Authorship Relations

Figs. 4 provide an examination of collaborative patterns as shown by the analysis of joint authors and networks. Each node in this network indicates a writer who has collaborated with another. This analysis may include many distinct dimensions to visualise clusters and connections between dimensions or changes over time. The writers' connections throughout their time together are analysed in Figure 4. The writers' connection here is best described as an annual one. Wang has been shown to have more connections to other authors than any of the others. Meanwhile, recent research, like that done by Zhou, is highlighted in yellow.

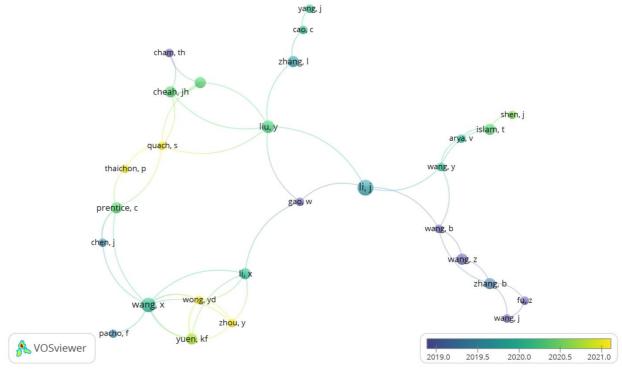


Figure 4. Visualization of overlay Authors and co-authorship relations on consumer buying behaviour research.

Source: Prepared by Authors (2023)

CONCLUSION

The goal of this research was to do a computational mapping analysis of the bibliometric data of the research on consumer buying behaviour. In this study, we use VOSviewer to examine data gathered from the Google Scholar about the buying behaviour of consumers. One thousand publications covering the years 2018-2022 were gathered that were all somewhat connected to the topic. Information obtained from the Google Scholar archive and made available through the Publish or Perish. The search process used the keyword "consumer buying behaviour" which is based on a topic area with titles, keywords, and abstracts. Both analysis overlay visualisation and density visualisation were use to isolate essential ideas from a given body of research or body of knowledge. Network analysis reveals that there are five distinct sub-areas of inquiry concerning consumer buying behaviour. Each cluster has a different number of topics; cluster 1 has 16, cluster 2 has 13, cluster 3 has 9, cluster 4 has 7 and cluster 5 has 3. It is clear that there are relationships between the terms included in each cluster. This suggests a link between the growth of study and this topic. Regarding the analysis of journals, the most productive journal in the consumer buying behaviour topic was British Food Journal. In terms of keyword analysis during the analysed period, the most commonly used author keywords in consumer buying behaviour literature were brand, consumer buying behaviour, preference, social medium, consumers intention, green product, planned behaviour, purchase

intention, trust, willingness, consumer behavior, covid, customer, india, pandemic, panic, relation, risk, consumers attitude, evidence, organic food, sustainability, behavior, impulse and impulse buying. Moreover, contribution in terms of publications by most productive author during the entire analysed period was Wang. Based on the findings and discussion above, it can be concluded that VOSviewer may be utilised as a mapping tool for bibliometric analysis of data. The research contains two major flaws. To begin, the research in this article was compiled using just a small subset of keywords, and its scope may have been constrained further by the specificity of the Google Scholar database (GS) that was used. Second, the subjective evaluations of the author occur even when formal software is used as instruments in this research (PoP software, VOSviewer, and Microsoft Excel). It is suggested that in future studies a bigger sample be employed by increasing the number of search terms and the number of databases that are available to the researchers. It may also make use of a comparison of the outcomes of other bibliometric analyses (including BibExcel and HistCite), both of which come highly recommended. Further research in this area is encouraged so that the sparse literature on consumer buying behaviour can be better explained.

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