A Bibliometric Analysis of the Usage of 'Meta-UTAUT': An Emerging IS/IT Acceptance Theory

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ABSTRACT

Purpose: The aim of the study is to understand and explore the bibliometric characteristics of the emerging technology acceptance theory "Meta-UTAUT".

Design/Methodology/Approach: This study has utilized Bibliometrics approach. Using the international database Scopus, articles were retrieved on "Meta-UTAUT" which were published between 2019 (its inception) and 2024. A total of 23 papers were found in the Scopus and these were used for analysis. Key concepts, such as years, countries, subject areas, authors and paper citations were analysed using MS-Excel and VOSviewer.

Findings: Out of all the papers, most have been published in the year 2022 and in the countries of UK & India. Very few authors have been repeatedly contributing to "Meta-UTAUT" research and one paper has shown significant citations as compared to other papers. Computer Sciences and Business, Management and Accounting have come at the top in the subject areas. This study shows that the "Meta-UTAUT" is an important theory that is being used very scarcely. So, researchers can fill this theoretical gap in their subsequent research initiatives.

Originality: As per researcher's knowledge, no study has tried to understand how "Meta-UTAUT" research is evolving since its inception. So, the study has tried to fill that gap as "Meta-UTAUT" presents a very interesting improvement in previous technology acceptance theories.

Paper Type: Research Thought

KEYWORDS: Technology | Acceptance | Meta-UTAUT | Bibliometrics | Citations

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Introduction

Information Technology (IT) has been changing rapidly over the past few years, it has revolutionized every sector such as healthcare, production, education, customer service, information technology payments etc. It has gained lots of scholarly attention in the recent times and several theories/ models have been devised to understand the acceptance and usage of IT. TAM (Davis, 1989) was the most popular theory in IT literature for quite a few years, but after the formation of UTAUT i.e., Unified Theory of Acceptance and Use of Technology, it became more popular among researchers (Dwivedi et al., 2010). It is a comprehensive theory used to understand the factors which lead to acceptance and usage of a particular technology. It is based on the previous eight most used models in the field of information system (IS) and it was devised by Venkatesh et al. (2003).

Figure 1
Unified Theory of Acceptance and Use of Technology
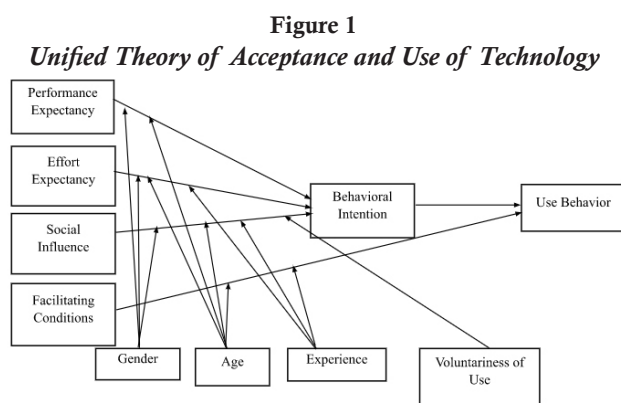
Note. From "User Acceptance of Information Technology: Toward a Unified View", by V. Venkatesh, M. G. Morris, G. B. Davis and F. D. Davis, 2003, *MIS Quarterly, 27*(3), p. 447, (https://doi.org/10.2307/30036540).

UTAUT was extended by adding several constructs by several authors in the subsequent researches. Dwivedi et al. (2019) presented a model which is based on the meta-analysis of previous UTAUT studies and it is known as Meta-UTAUT. Dwivedi et al. (2020) points out that meta-UTAUT model has made significant improvement and contribution in the UTAUT model by simplifying it & adding a very important construct 'Attitude' as mediator.

Figure 2
Meta-UTAUT
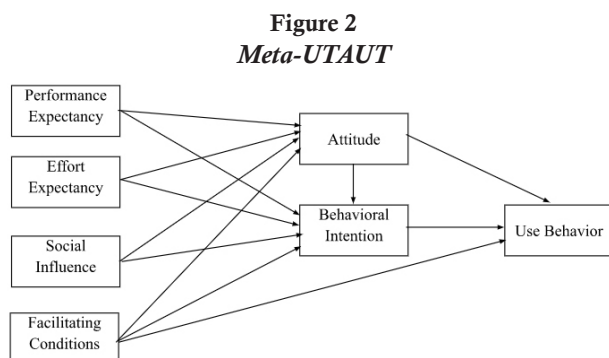
Note. From "Re-examining the Unified Theory of Acceptance and Use of Technology (UTAUT): Towards a Revised Theoretical Model", by Y. K. Dwivedi, N. P. Rana, A. Jeyaraj, M. Clement and M. D. Williams, 2019, *Information Systems Frontier, 21*(3), p. 728, (https://doi.org/10.1007/s10796-017-9774-y).

It would be interesting to understand how Meta-UTAUT is being used in IS literature. To the best of my knowledge, there is no published study which shows bibliometric analysis of Meta-UTAUT model. So, this paper aims to analyze Meta-UTAUT literature via bibliometric analysis. Bibliometrics is a very important method which has significant objectivity and advantages in quantitative and modelling macro research (Wang et al., 2022). At present, Meta-UTAUT is developing and this paper analyses the applicability & several other aspects using VOSviewer software.

Methodology

The data on "Meta-UTAUT" is derived from the Scopus international database using a well-defined search strategy. Keyword "Meta-UTAUT" was used in the "TITLE-ABS-KEY" tag of the Scopus database and the search was restricted to period since 2019 till 17th September 2024. The search yielded 23 global records and the data was downloaded in a csv file and the various bibliographic features of each downloaded records were analysed using Ms Excel and VOSviewer software. A number of select quantitative and qualitative indicators were used to study the performance of research in this field.

Analysis and Results

Literature growth shows Meta-UTAUT is being used very scarcely among researchers, out of total 23 papers, most were published in the year 2022 i.e. 8, then in 20220 & 2023 five papers were published. In the year 2024 & 2021, three and two papers were published respectively as shown in the table 1 below.

Table 1
Publications using Meta-UTAUT over 5 years

Year	Total Papers
2024	3
2023	5
2022	8
2021	2
2020	5

Next, we look at the top countries which are publishing most papers and their citations using Meta-UTAUT as shown in the Table 2. United Kingdom is at the top with 9 documents and next in line is India as technological advances are rapidly increasing in India, so research is being conducted at wider scale, followed by Indonesia with 5 papers but the citations are very less of those papers. Saudi Arabia with 3 documents has third most citations.

Table 2
Country-wise profile

| Country	Documents	Citations
United Kingdom	9	942
India	8	932
Indonesia	5	16
Saudi Arabia	3	242
South Africa	2	46
Australia	2	45

Rana, N.P. has emerged as the most cited author who has 5 papers to his name which have 722 citations. Next is Tamilmani, K. who has authored 4 documents which have been cited 651 times by the researchers. Raghavan, V. is next in line, followed by Patil, P., Dwivedi, Y.K., Abed, S.S. and Chatterjee, S. we have covered top 7, there are other few authors as well.

Table 3
Profile of top authors

Author	Documents	Citations
Rana, N.P.	5	722
Tamilmani, K.	4	651
Raghavan, V.	2	477
Patil, P.	1	440
Dwivedi, Y.K.	5	326
Abed, S.S.	2	199
Chatterjee, S.	2	81

Figure 3 elaborates on the subject-wise distribution of Meta-UTAUT papers. It shows that Computer Science & Business, Management and Accounting are the top subjects which are publishing papers using Meta-UTAUT, followed by Decision Sciences, Mathematics, Psychology and Social Sciences.

Figure 3
*Broad Subject-Wise Distribution of Papers*
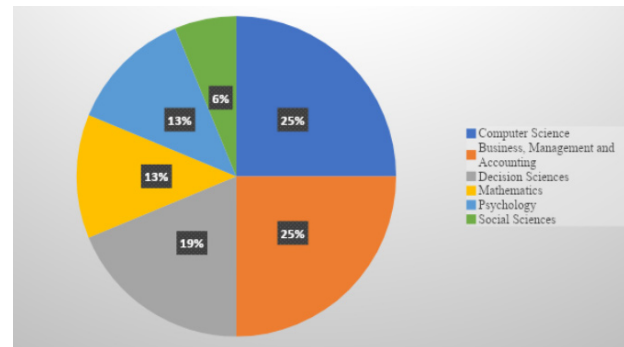
Next, we look at the 29 significant keywords which have been repeated in the literature. Key words occurrences range from 16 to 2. Meta-UTAUT is the highest occurring keyword followed by Adoption. Table 4 and Figure 4 show the keyword analysis.

Table 4
Significant Keywords and their occurrences

Keyword	Occurrences	Keyword	Occurrences
Meta-UTAUT	16	Global System for Mobile Communications	2
Adoption	7	Human	2
Behavioral Intention	3	Intention	2
Behavioral Research	3	Intention to Use	3
Chatbots	2	Attitude	3
CRM Quality	2	Mobile Payment	3
CRM Satisfaction	2	Performance	2
Customer Relationship Management Systems	2	Performance Expectancy	2
Developing Countries	2	Personnel	2
Economic and Social Effects	2	Public relations	2
Electronic Money	2	Social influence	3
Facilitating Conditions	3	Tam	2
Gen Z	2	Technology	2
Use Behavior	2	UTAUT	2
Use Behaviour	3		

Figure 4
Keyword Co-occurrence Map
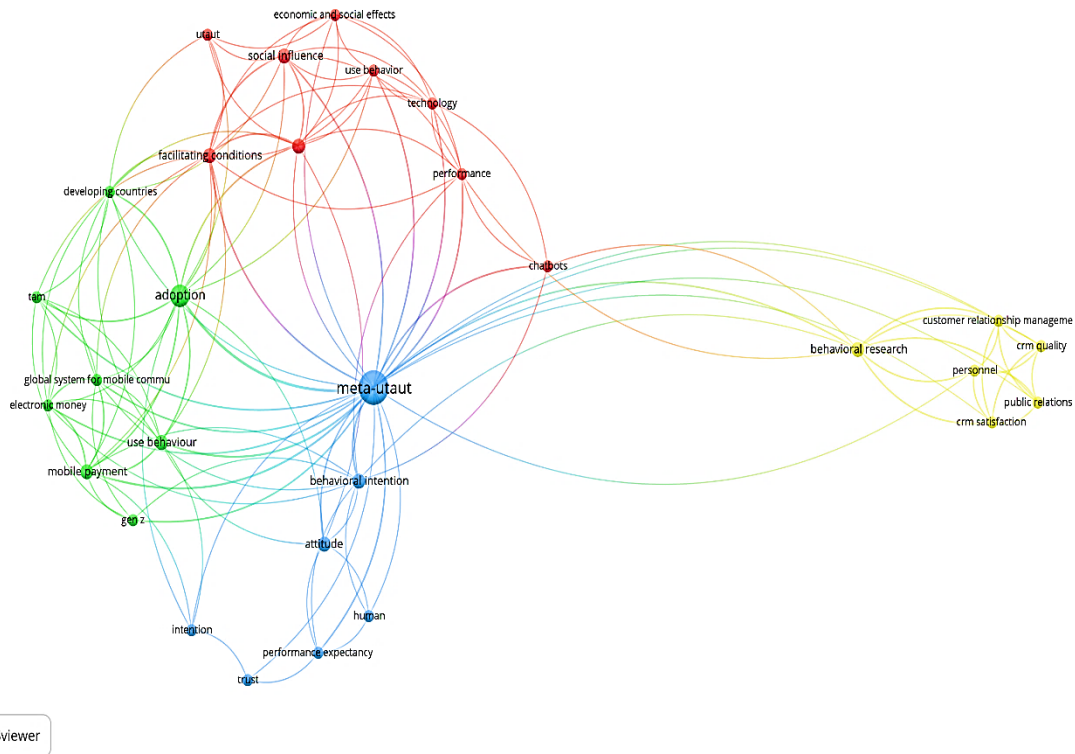
Few of the top cited papers have been listed down in the Table 5. It shows that the paper titled "Understanding consumer adoption of mobile payment in India: Extending Meta-UTAUT model with personal innovativeness, anxiety, trust, and grievance redressal" published in 2020 in the International Journal of Information Management has 440 citations. Next highly cited paper is "A meta-analysis based modified unified theory of acceptance and use of technology (meta-UTAUT): a review of emerging literature" published in the journal Current Opinion in Psychology. It can be noted that there is a lot of gaps in the citation scores. First paper is cited a lot which is 440 and others lag behind a lot.

Table 5
Highly Cited Papers

Papers	Citations
Patil, P., Tamilmani, K., Rana, N.P. and Raghavan, V. (2020). Understanding consumer adoption of mobile payment in India: Extending Meta-UTAUT model with personal innovativeness, anxiety, trust, and grievance redressal. *International Journal of Information Management*, 54, 102144.	440
Dwivedi, Y.K., Rana, N.P., Tamilmani, K. and Raman, R. (2020). A meta-analysis based modified unified theory of acceptance and use of technology (meta-UTAUT): a review of emerging literature. *Current Opinion in Psychology*, 36, 13–18.	164
Upadhyay, N., Upadhyay, S., Abed, S.S. and Dwivedi, Y.K. (2022). Consumer adoption of mobile payment services during COVID-19: extending meta-UTAUT with perceived severity and self-efficacy. *International Journal of Bank Marketing*, 40(5), 960–991.	106
Balakrishnan, J., Abed, S.S. and Jones, P. (2022). The role of meta-UTAUT factors, perceived anthropomorphism, perceived intelligence, and social self-efficacy in chatbot-based services? *Technological Forecasting and Social Change*, 180, 121692.	93
Chatterjee, S., Rana, N.P., Khorana, S., Mikalef, P. and Sharma, A. (2023). Assessing Organizational Users' Intentions and Behavior to AI Integrated CRM Systems: a Meta-UTAUT Approach. *Information Systems Frontiers*, 25(4), 1299–1313.	71
Alkhowaiter, W.A. (2022). Use and behavioural intention of m-payment in GCC countries: Extending meta-UTAUT with trust and Islamic religiosity. *Journal of Innovation and Knowledge*, 7(4), 100240.	43

Conclusion

Meta-UTAUT is an emerging theory which has improved UTAUT by employing Attitude as mediator to better explain variance in Behavioral Intention and Actual Use Behavior. In this study, an attempt was made to understand how researchers are using this emerging theory. It provides a summary on several aspects of bibliometrics such as authorship year, country, subject area, keywords, highly cited papers etc. Findings show that, it has been used very scarcely over a period of 5 years, only 23 documents were found in Scopus database incorporating Meta-UTAUT and 2022 is the year which has most papers published in a year i.e., 8 papers. Authors from UK and India have contributed to most papers. If we look at the subject areas then Computer Sciences and Business, Management and Accounting have contributed the most papers. Findings also show that few authors have repeatedly contributed to the Meta-UTAUT research. This study might be helpful to the academicians as usage of Meta-UTAUT can be taken as theoretical gap and can be pursued further in different areas.

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The Editorial Board had used the Turnitin is an Internet-based similarity detection service run by the American company Turnitin, LLC, a subsidiary of Advance Publications which is a fully-automatic machine learning text- recognition system made for detecting, preventing and handling plagiarism and trusted by thousands of institutions across worldwide. Turnitin is an award-winning software that helps detect and prevent plagiarism regardless of language. Combining text- matching with writing-style analysis to promote academic integrity and prevent plagiarism, Ouriginal is simple, reliable and easy to use. Ouriginal was acquired by Turnitin in 2021. As part of a larger global organization GJEIS and Turnitin better equipped to anticipate the foster an environment of academic integrity for educators and students around the globe. Ouriginal is GDPR compliant with privacy by design and an uptime of 99.9% and have trust to be the partner in academic integrity (https://www.ouriginal.com/) tool to check the originality and further affixed the similarity index which is {08%} in this case (See below Annexure 16.2.13). Thus, the reviewers and editors are of view to find it suitable to publish in this Volume-16, Issue-2, Apr - June 2024.

Annexure 16.2.13

Submission Date	Submission Id	Word Count	Character Count
20-Apr-2024	271726958393 (Turnitin)	1449	9081

Analyzed Document	Submitter email	Submitted by	Similarity
6.1 RT1_Anchal_GJEIS Apr to June 2024.docx	guliaanchal@yahoo.com	Anchal Gulia	08%

Reviewers Memorandum

Reviewer's Comment 1: The study explore the bibliometric characteristics of the emerging technology acceptance Meta-UTAUT theory, which is a valuable contribution to the literature, especially given the emerging nature of the theory. The use of Scopus data and analysis through MS Excel and VOSviewer is a solid methodological choice, allowing for a clear understanding of key patterns such as author contributions, country-wise research, and subject areas.

Reviewer's Comment 2: The study's limitation in data collection, with only 23 papers being analyzed, raises concerns about the generalizability of the findings. Given the emerging nature of Meta-UTAUT, the paper could benefit from a broader search strategy or inclusion of databases beyond Scopus to gather more substantial insights. This also provide scope for future researcher to merge two and three databases to have more articles on this emerging topic.

Reviewer's Comment 3: The visualization of data through tables and figures, such as keyword co-occurrence maps and subject-wise distribution, is highly effective. These visual aids not only enhance the clarity of the findings but also make it easier for readers to grasp the trends and connections in Meta-UTAUT research at a glance. Also, inclusion of a Prisma flow diagram would have improved the transparency of the data collection process, making it easier for readers to understand the inclusion and exclusion criteria for the articles used in the bibliometric analysis.

Editorial Excerpt

The article has 8% of plagiarism,, which is the accepted percentage as per the norms and standards of the journal for publication. As per the editorial board's observations and blind reviewers' remarks, the paper had some minor revisions, which were communicated on a timely basis to the authors (Anchal and Leena), and accordingly, all the corrections had been incorporated as and when directed and required to do so. The comments related to this manuscript are noticeably related to the theme "**A Bibliometric Analysis of the Usage of 'Meta-UTAUT': An Emerging IS/IT Acceptance Theory**" both subject-wise and research-wise. This author presents an insightful bibliometric review of Meta-UTAUT. While the analysis is valuable, the limited sample size weakens the conclusions about the theory's overall impact. Expanding the scope of data collection and providing a more balanced analysis of gaps in the literature, especially regarding under-researched regions or disciplines, would make the paper more robust and applicable to a wider academic audience. After comprehensive reviews and the editorial board's remarks, the manuscript has been categorized and decided to publish under the "**Research Thought**" category.