Investigating the Factors Influencing Lecturers in Conducting Research and Publications in Social Sciences Through the Lens of the Theory of Planned Behaviour

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ABSTRACT

Research and publication are essential components of academic work, contributing to knowledge development, institutional reputation, and career advancement among lecturers. However, increasing expectations for scholarly productivity have raised concerns regarding lecturers' research engagement, publication practices, and the factors that influence their participation in research and publications. This study is guided by the Theory of Planned Behaviour (TPB). This study identifird types of publications that are published by lecturers, To examined types of research methods that are employed by lecturers, investigated factors influencing lecturers in conducting research and publications based on the TPB constructs and assessed the relationship between the preference and factors influencing lecturers in conducting research and publications based on the TPB constructs. This study employed a quantitative method using a survey by distributing a questionnaire developed using Google Forms via emails and WhatsApp groups. The sample of the study comprised of 64 lecturers from Universiti Teknologi MARA (UiTM) Negeri Sembilan Branch selected through purposive sampling. The findings revealed that conference proceedings and indexed journals were the most preferred publications while quantitative research was the dominant methodological approach. Overall, the lecturers demonstrated positive attitudes toward conducting research and publications. The findings highlight the importance of institutional support and collaborative research environments in strengthening lecturers' research and publication engagement and productivity.

Keywords: research, publications, attitudes, subjective norms, perceived behavioural control, Theory of Planned Behaviour

INTRODUCTION

Research and publication are closely interconnected, as the research findings are disseminated through publication in order to share the findings with the audience. Research and publication activities are commonly conducted by researchers and academicians for achieving their key performance indicators (KPI). Universiti Teknologi MARA (UiTM) emphasises research and publication as important for the educators at the university. Research is mentioned in Education 5.0 (Academic Affairs Division, 2019) as one of the essential roles and attributes of inspiring educators. Therefore, conducting and publishing research are among the KPIs for the yearly appraisal and career promotion. Furthermore, research and publication play a pivotal role in elevating the ranking of UiTM, increasing its visibility, and enhancing its credibility on a global scale.

Pertaining to educators at tertiary institutions, research and publication activities can be conducted with or without grants. Grants for are commonly available from the tertiary institutions or other bodies either the government, foundations or any non-profit or profit organizations. After completing research, research findings can be scholarly published in non-refereed journals, refereed journals, chapters-in-book or conference proceedings. The publications can also be categorised according to journal indexing such as Web of Science, Scopus, Google Scholar, Directory of Open Access Journals (DOAJ) and Malaysian Citation (MyCite).

Since research and publication are integral parts in the KPI of lecturers at UiTM, it is crucial to examine several aspects of their research and publication activities. Thus, this study formulated the following objectives:

- To identify types of publications that are published by lecturers
- To examine types of research methods that are employed by lecturers.
- To investigate factors influencing lecturers in conducting research and publications based on the TPB constructs.
- To assess the relationship between the preference and factors influencing lecturers in conducting of research and publications based on the TPB constructs.

LITERATURE REVIEW

Research and publications are two activities which are inseparable. Research is conducted to collect the data which are analysed to obtain findings on the problem or phenomenon that is investigated. While publication is the activity of publishing documents to inform the target readers about the research findings. Generally, research can be divided into two diciplines namely Science, Technology, Engineering, and Mathematics (STEM) and social sciences. This study only focuses on research and publications in social sciences.

Research Methods Employed by Lecturers

Research methodology is a critical component of scholarly inquiry because it determines the rigor, validity, and applicability of research findings. In higher education, lecturers employ quantitative, qualitative, and mixed-methods approaches depending on disciplinary traditions, research objectives, and methodological competencies.

Social science researchers are increasingly adopting mixed methods designs to obtain a more comprehensive understanding of complex educational and societal phenomena. Matos et al. (2023) state that mixed-methods approaches have gained considerable prominence in educational research because they integrate numerical evidence with contextual and experiential perspectives, thereby strengthening methodological robustness.

Similarly, Kuorikoski and Marchionni (2023) argue that mixed-methods research is becoming increasingly popular in the social sciences because the integration of qualitative and quantitative evidence enhances the reliability of causal inference and provides a richer understanding of research problems. Furthermore, Aramide et al. (2023) highlight that mixed-methods research is now widely recognized as an important research approach that offers complementary strengths of qualitative and quantitative methodologies in addressing complex phenomena.

Research method selection may be influenced by researchers' methodological knowledge, competencies, and educational experiences. The development of methodological competencies through research training plays an important role in enabling researchers to select appropriate approaches for investigating research problems (Matos et al., 2023). In the social sciences, quantitative methods are frequently employed to examine relationships among variables and generate generalizable findings, whereas qualitative approaches are particularly valuable for understanding lived experiences, perceptions, and social interactions.

Given the complexity of contemporary social phenomena, scholars increasingly advocate methodological pluralism, which recognizes the value of employing diverse methodological approaches to address research questions from multiple perspectives (Ganzevles et al., 2022). Consequently, social science researchers are encouraged to develop competencies across different research traditions to enhance the rigor and relevance of their scholarly work.

Within contemporary higher education contexts, lecturers' choices of research methods can be influenced not only by academic interests but also by publication requirements, funding opportunities, and international

collaboration networks. Consequently, examining the research methods employed by lecturers provides valuable insights into institutional research culture and academic capacity development.

Factors Influencing Lecturers in Conducting Research and Publications through the Lens of the Theory of Planned Behaviour

Theory of Planned Behaviour

The Theory of Planned Behaviour (TPB) (Ajzen,1991) provides a widely accepted framework for explaining human behaviour. According to the TPB, an individual's intention to perform a behaviour is influenced by three key determinants namely attitude toward the behaviour, subjective norm, and perceived behavioural control. Numerous studies have validated the TPB across educational and organizational contexts, demonstrating its effectiveness in predicting behavioural intentions and actual behaviours (Yeoh et al., 2023). In the context of academic research, the TPB offers a useful lens for examining the factors that motivate lecturers to engage in research and publication activities. This study focuses on three constructs, namely attitudes, subjective norms, and research collaboration preference.

The TPB explains that behavioural intention is the most immediate predictor of behaviour, and intention is shaped by individuals' evaluation of the behaviour (attitude), perceived social pressure (subjective norm), and perceived ability to perform the behaviour (Ajzen, 1991). The theory has been extensively applied to explain various work-related intentions and professional behaviours, including knowledge sharing, innovation adoption, and academic productivity (Yeoh et al., 2023).

Attitudes Toward Research and Publication

Attitude refers to the degree to which an individual has a favourable or unfavourable evaluation of a particular behaviour (Ajzen, 1991). In the academic context, attitudes toward research and publication reflect lecturers' beliefs regarding the importance, benefits, and value of engaging in research activities and disseminating findings through scholarly publications.

Positive attitudes have consistently been linked to greater research engagement and productivity. lecturers who perceive research as intellectually stimulating, professionally rewarding, and beneficial for career advancement are more likely to invest time and effort in conducting research. Such researchers often view publication as a means of contributing to disciplinary knowledge, enhancing their academic reputation, and fulfilling institutional expectations.

Empirical evidence supports the significance of attitudes in influencing research productivity. Sahudin et al. (2023) found that positive attitudes significantly influence academic research productivity among university lecturers in Malaysia. The authors argue that lecturers who recognize the personal and professional benefits of research are more likely to participate actively in research activities and pursue publication opportunities. These findings are consistent with TPB, which states that favourable evaluations of a behaviour strengthen behavioural intentions and increase the likelihood of behavioural performance. Therefore, attitudes toward research and publication are an important motivational factor that influences lecturers' willingness to conduct research and produce scholarly outputs.

Subjective Norms and Research Behaviour

Subjective norm refers to an individual's perception of social expectations regarding whether a behaviour should be performed (Ajzen, 1991). In higher education institutions, subjective norms originate from significant referent groups, including colleagues, department heads, university management, research supervisors, funding agencies, and professional associations.

Academic environments often establish clear expectations concerning research productivity and publication performance. Promotion criteria, tenure requirements, university rankings, and performance evaluation systems can create pressures that encourage lecturers to engage in research activities. When researchers

perceive those influential individuals and institutions value research and publication, they are more likely to develop stronger intentions to participate in scholarly activities.

Sahudin et al. (2023) reported that subjective norms significantly affect lecturers' research productivity. The study suggests that support, encouragement, and expectations from colleagues and institutional leaders positively influence lecturers' engagement in research-related activities. Similarly, Yeoh et al. (2023) observed that subjective norms remain a significant predictor of work-related intentions across various professional contexts, reinforcing the explanatory power of TPB.

Furthermore, supportive research cultures foster collaboration, mentorship, and knowledge sharing, all of which contribute to stronger research engagement. Consequently, subjective norms play a vital role in shaping lecturers' decisions to conduct research and publish scholarly work.

Research Collaboration Preference

Research collaboration preference refers to an individual's tendency or willingness to engage in collaborative research activities with colleagues, research groups, or external partners. Although research collaboration preference is not one of the original TPB constructs, it represents a contextual factor that may strengthen research intentions and enhance publication outcomes.

The growing complexity of contemporary research has increased the importance of collaboration in higher education. Collaborative research allows lecturers to share expertise, resources, methodologies, and networks, thereby improving the quality and impact of research outputs. Researchers who prefer collaborative work often benefit from interdisciplinary perspectives, increased access to research funding, and expanded publication opportunities.

Gilmour (2024) highlighted the role of collaboration in strengthening research cultures and facilitating knowledge exchange within academic departments. The study found that collaborative practices promote research engagement, increase research capacity, and support the development of productive scholarly communities. Similarly, Owan et al. (2024) reported that collaboration serves as an important mechanism linking institutional support and mentorship to research productivity among lecturers.

Research collaboration also provides social and professional support that can help researchers overcome barriers such as limited expertise, resource constraints, and publication challenges. Through collaborative relationships, lecturers gain access to shared knowledge, constructive feedback, and opportunities for co-authored publications. As a result, lecturers who demonstrate stronger preferences for collaboration are often better positioned to achieve sustained research productivity and publication success.

From the TPB perspective, research collaboration preference may reinforce positive attitudes toward research while simultaneously strengthening normative influences through professional interactions and scholarly networks. Consequently, collaboration preference can be expected to contribute positively to conducting research and publication behaviour.

In conclusion, the TPB provides a useful framework for understanding factors influencing lecturers in conducting research and publication. The literature demonstrates that attitudes and subjective norms significantly influence research productivity, while research collaboration preference enhances research engagement and publication success.

Lecturers who value research, perceive strong institutional and peer support, and prefer collaborative research environments are more likely to engage actively in scholarly activities and contribute meaningfully to knowledge generation. Therefore, universities seeking to improve research performance should foster positive attitudes toward research, cultivate supportive research cultures, and promote collaborative research practices among lecturers.

RESEARCH METHODOLOGY

The study adopted a quantitative research design, and the instrument used for the data collection was an online survey administered through Google Forms. A survey approach is appropriate for quantitative research as it enables the collection of standardized data from a sample of respondents to describe attitudes, opinions, and characteristics, as well as examine relationships among variables (Creswell & Creswell, 2023). The use of an online survey further facilitated efficient data collection across multiple campuses and enhanced accessibility for potential respondents.

The target population comprised of 430 lecturers from the Universiti Teknologi MARA (UiTM) Negeri Sembilan Branch, representing three campuses namely Kuala Pilah, Seremban, and Rembau. Purposive sampling was employed because the study sought responses from lecturers who possessed relevant knowledge and experience related to the research topic. As a non-probability sampling technique, purposive sampling allows researchers to select participants who are considered most capable of providing information relevant to the research objectives (Etikan et al., 2016).

A total of 64 lecturers participated in the study, yielding a response rate of 14.88% of the overall population. Although the response rate was relatively low, the data obtained provided valuable insights into lecturers' perspectives within the UiTM Negeri Sembilan Branch. All responses were voluntary.

The online survey using Google Forms was distributed via official emails and Whatsapp groups. The survey comprised of four sections which were (1) demographic profile, (2) types of publications, (3) types of research methods and (4) factors influencing lecturers in conducting research and publications. The items in Section Four used five Likert scales as options: (1) Strongly Disagree (1), (2) Disagree, (3) Neutral, (3) Agree and (3) Strongly Agree.

A questionnaire in Section Four (factors influencing lecturers in conducting research and publications) consisted of 14 items. The questionnaire was developed based on the TPB (Ajzen, 1991), which explains that behavioural intention is determined by attitude towards the behaviour, subjective norms, and perceived behavioural control. The TPB framework was employed to explain the intention in conducting research and publications. The items were constructed based on the three TPB constructs as follows:

Table 1: Items in the questionnaire based on the TPB constructs

TPB Construct	**Questionnaire Item**
Attitude	1. Conducting and publishing research is challenging.
	2. Conducting and publishing research is costly.
	3. Conducting and publishing research is time-consuming.
	4. I conduct and publish research to improve my skills and knowledge.
	5. I conduct and publish research to get university recognition.
	6. I conduct and publish research to enhance my yearly appraisal.
	7. I conduct and publish research to get promotions in my career.
Perceived	8. I am willing to self-fund my research and publication.

Behavioural Control	9. I am willing to use my time after office hours for research and publication.
Research Collaboration Preference	10. I prefer to conduct and publish research individually.
	11. I prefer to conduct and publish research in a team.
	12. I prefer to have team members from my faculty.
	13. I prefer to have team members from other faculties.
Overall	14. I like to conduct research and publication.

The reliability of items was analysed by using the Statistical Packages for Social Sciences (SPSS). The value for Cronbach's Alpha for the survey items with the Likert scale options which contained 14 items was α = .769. According to Creswell (2018), the optimal value of α is between 0.7 to 0.9. Therefore, the reliability of the items is acceptable.

Table 2 Reliability Statistics

Cronbach's Alpha	N of Items
.769	14

The data were analysed for descriptive statistics which were frequencies and mean scores for anwering research objectives one, two and three. A correlation test namely Spearman to assess the relationships between variables in answering research objective four. The data analysis was performed by using the SPSS. The results were tabulated in tables for interpretations.

RESULTS

Demographic Profile of Respondents

Table 3 indicates that the lecturers were from eight faculties and two academies. The highest number of lecturers was from Academy of Language Studies (42.2%). It is followed by Applied Sciences (18.8%), Computer and Mathematical Sciences (15.6%) and Business Management (6.3%). Communication and Media Studies and Sport Science & Recreation recorded the same results (4.7%). The lecturers from Academy of Contemporary Islamic Studies were only 3.1%. Finally, only 1.6% which was one lecturer was from Accountancy, Information Management and Law.

Table 3 Faculty/ Academy

Faculty/ Academy	Frequency	Percentage
Applied Sciences	12	18.8
Computer and Mathematical Sciences	10	15.6
Business Management	4	6.3
Communication and Media Studies	3	4.7

Sport Science & Recreation	3	4.7
Accountancy	1	1.6
Information Management	1	1.6
Law	1	1.6
Academy of Language Studies	27	42.2
Academy of Contemporary Islamic Studies	2	3.1
Total	64	100.0

Table 4 indicates the results for gender. Most of the lecturers (78.1%) were female while 21.9% were male. This is due to most of the lecturers at UiTM Neger Sembilan are females.

Table 4 Gender

Gender	Frequency	Percent
Male	14	21.9
Female	50	78.1
Total	64	100.0

Table 5 indicates the results for age. Nearly two third of the lecturers (62.5%) aged between 30 to 39 years old. It is followed by 21.9% of them were 40 to 49 years old, 10.9% of them were 50 to 59 years old and 3.1% of them were above 60 years old. Only 1.6% of them (one lecturer) was from 25 to 29 years old.

Table 5 Age

Age (in years old)	Frequency	Percent
25-29	1	1.6
30-39	40	62.5
40-49	14	21.9
50-59	7	10.9
60 and above	2	3.1
Total	64	100.0

Table 6 indicates the results for year of service, showing that 39.15% of them serviced for 6-10 years, followed 11-19 years (23.4%), more than 20 years (17.2%), two years or less (4.7%) and three to five years (15.6%). Only 4.7% of them serviced for two years or less.

Table 6 Year of Service

Year of Service	Frequency	Percent
2 years or less	3	4.7
3-5 years	10	15.6
6-10 years	25	39.1
11-19 years	15	23.4
More than 20 years	11	17.2
Total	64	100.0

Table 7 indicates that nearly two third of them possessed a Master degree (67.2%). It is followed by 31.3% of them had Philosophy Doctor (PhD). Only 1.6% had a Bachelor degree.

Table 7 The Highest Qualification

The highest qualification	Frequency	Percent
PhD	20	31.3
Masters	43	67.2
Bachelor	1	1.6
Total	64	100.0

Research Objective 1: To identify types of publications that are published by lecturers

Table 8 indicates the results for types of publications chosen by lecturers to publish their research. Proceedings scored the highest percentage (81.3%). The possible reason for this is that this type of publication takes shorter time to publish, most proceedings do not involve publication fee and the time to process the publication is shorter compared to other types of publication.

Indexed journals scored the second highest percentage (65.6%). The lecturers preferred to publish in indexed journals to other journal types. In the case of UiTM, it may be due to UiTM highly encourages them to publish indexed journal by notifying them if they have or do not have indexed publication for the current year. The notification appears in the UiTM online publication system that curates their publication.

Other types of publication which were non-refereed journals, Scopus or WoS journals and chapters-in-book scored 54.7%, 46.9% and 42.2%, respectively. Non-refereed journals may be less preferred due to lack of recognition from UiTM. As for Scopus or WoS journals, the types of publication are highly recognised especially for visibility and promotion.

However, many Scopus or WoS journals charge costly publication fees, and the process of publication takes a longer time compared to other types of journals. While chapters-in-book are non-indexed publication which may carry less impact for the lecturers' visibility and career promotion.

Table 8 Type of Publication

	Type of Publication	Percentage
1	Scopus or WoS journals	46.9
2	Indexed journals	65.6
3	Non-refereed journals	54.7
4	Chapters-in-book	42.2
5	Proceedings	81.3

Research Ojective 2: To examine types of research methods that are employed by lecturers.

Table 9 indicates that the 75.0% of the lecturers used a quantitative method. It is followed by a qualitative method (51.6%). There were only 37.5% of lecturers used mixed methods. The results suggest a strong preference among lecturers for quantitative research approaches, while qualitative methods also remain relatively popular. The lower use of mixed methods may reflect the greater complexity, time requirements, and methodological expertise needed to integrate both quantitative and qualitative data within a single study.

Table 9 Type of Research Methods

	Type of Research	Percentage
1	Qualitative	51.6
2	Quantitative	75.0
3	Mixed Methods	37.5

Research Objective 3: To investigate factors influencing lecturers in conducting research and publications based on the TPB constructs

Table 10 indicates the results of the lecturers' attitudes towards research and publications in social sciences. The means scores are interpreted using the ranges provided by Alston and Miller (2002): Strongly Disagree (1.0 - 1.49), Disagree (1.5 - 2.49), Neutral (2.5 - 3.49), Agree (3.5 - 4.49) and Strongly Agree (4.5 – 5.0).

Based on the results presented in Table 10, the lecturers demonstrated a generally positive attitude towards conducting and publishing research, as all attitude-related items recorded mean scores above 3.80 and were interpreted as "Agree". The highest-rated item was "I conduct and publish research to improve my skills and knowledge" (M = 4.34, SD = 0.648), indicating that professional development was the primary motivation for engaging in research activities. This was followed by "Conducting and publishing research is time-consuming" (M = 4.36, SD = 0.651), suggesting that respondents strongly acknowledged the substantial time commitment required for research and publication. Respondents also agreed that conducting and publishing research is challenging (M = 4.14, SD = 0.687) and costly (M = 4.00, SD = 0.816). Additionally, lecturers perceived research as beneficial for enhancing yearly appraisal (M = 4.06, SD = 0.687), obtaining university recognition (M = 3.81, SD = 0.753), and advancing career promotion opportunities (M = 3.81, SD = 0.889). Overall, the findings indicate that despite recognizing the challenges associated with research, lecturers maintained favorable attitudes due to the professional and career-related benefits derived from research engagement.

For the construct of perceived behavioural control, respondents generally agreed that they possessed the willingness to allocate personal resources towards research activities. The item "I am willing to use my time after office hours for research and publication" recorded a mean score of 3.80 (SD = 0.894), while "I am willing to self-fund my research and publication" obtained a mean score of 3.56 (SD = 0.906). These findings suggest that lecturers were prepared to invest personal time and, to a lesser extent, financial resources to support their research and publication efforts. The relatively higher standard deviations for these items indicate greater variation in respondents' perceptions regarding their ability and willingness to commit personal resources.

With respect to research collaboration preference, respondents demonstrated a stronger inclination towards collaborative research than individual research. The item "I prefer to conduct and publish research in a team" recorded a high mean score of 4.14 (SD = 0.794), indicating substantial agreement among lecturers regarding teamwork in research activities. Similarly, respondents agreed that they preferred to have team members from their own faculty (M = 3.56, SD = 0.906). In contrast, the item "I prefer to conduct and publish research individually" recorded a mean score of 2.70 (SD = 0.903), which was interpreted as neutral. This finding suggests that lecturers valued collaborative approaches, possibly due to the benefits of shared expertise, workload distribution, and increased research productivity.

Overall, the results indicate that lecturers possess favourable attitudes towards research and publication, demonstrate moderate levels of perceived behavioural control through their willingness to invest personal resources, and exhibit a clear preference for collaborative research practices. These findings suggest that both intrinsic motivations, such as skill development, and collaborative research environments may play important roles in encouraging research and publication activities among lecturers.

Table 10 Attitudes of the lecturers towards conducting and publishing research

	Item	Mean	Std. Deviation	Interpretation
Attitude	1. Conducting and publishing research is challenging	4.14	.687	Agree
	2. Conducting and publishing research is costly	4.00	.816	Agree
	3. Conducting and publishing research is time-consuming	4.36	.651	Agree
	4. I conduct and publish research to improve my skills and knowledge	4.34	.648	Agree
	5. I conduct and publish research to get the university recognition	3.81	.753	Agree
	6. I conduct and publish research to enhance my yearly appraisal	4.06	.687	Agree

	7. I conduct and publish research to get promotions in my career	3.81	.889	Agree
Perceived Behavioural Control	8. I am willing to self-fund my research and publication	3.56	.906	Agree
	9. I am willing to use my time after the office hours for research and publication	3.80	.894	Agree
Research Collaboration Preference	10. I prefer to conduct and publish research individually	2.70	.903	Neutral
	11. I prefer to conduct and publish research in a team	4.14	.794	Agree
	12. I prefer to have team members from my faculty	3.56	.906	Agree
	13. I prefer to have team members from other faculties	3.78	.806	Agree

Research Objective 4: To assess the relationship between the preference and factors of conducting research and publication based on the TPB constructs

Table 11 presents the results of the Spearman's rho correlation analysis examining the relationships between attitudes, perceived behavioural control, and research collaboration preferences with respondents' interest in conducting research and publication. The findings revealed that several attitude-related factors were significantly associated with liking research and publication.

For attitudes, four out of seven factors demonstrated positive significant correlations with the preference of conducting reseach and publications. Conducting and publishing research to improve skills and knowledge (Item 4) demonstrated the strongest positive correlation ($r = .558$, $p < .01$), indicating that respondents who viewed research as an avenue for professional development were more likely to express a stronger interest in conducting research and publication. Significant positive correlations were also observed in Item 5,6 and 7: to gain university recognition ($r = .313$, $p < .05$), to enhance yearly appraisal ($r = .250$, $p < .05$), and to obtain career promotions ($r = .266$, $p < .05$). These findings suggest that both intrinsic and extrinsic motivations contribute to respondents' inclination towards research and publication activities.

In contrast, Item 1, 2 and 3 did not show significant relationships with respondents' interest in conducting research and publication. The perceptions that conducting and publishing research is challenging ($r = .009$), costly ($r = .048$), and time-consuming ($r = .037$) were not significantly correlated with the dependent variable. This indicates that although respondents may recognise the difficulties associated with research activities, such perceptions do not substantially influence their preference for engaging in research and publication.

With respect to perceived behavioural control, only one factor demonstrated a significant positive relationship with liking to conduct research and publication. The willingness to use time after office hours for research and publication recorded moderate and positive correlation with liking to conductresearch and publication ($r = .487$, $p < .01$). This finding suggests that respondents who were prepared to devote additional personal time to research activities were more likely to enjoy and participate in research and publication. However, willingness to self-fund research and publication was not significantly associated with liking to conduct research and publication ($r = .070$), indicating that financial commitment alone does not appear to influence research interest.

Regarding research collaboration preferences, significant positive relationships were found for preferences related to research team composition. Preference for having team members from other faculties showed a moderate positive correlation with liking to conduct research and publication ($r = .444$, $p < .01$), while preference for having team members from one's own faculty demonstrated a weaker but significant positive correlation ($r = .266$, $p < .05$). These results suggest that respondents who value collaborative research, particularly interdisciplinary collaboration, are more likely to have a favourable attitude towards conducting research and publication. Conversely, preference for conducting research individually ($r = .054$) and preference for conducting research in a team generally ($r = .182$) were not significantly related to research interest.

Overall, the findings indicate that respondents' interest in conducting research and publication is primarily driven by motivations related to skill enhancement, professional recognition, career advancement, commitment of personal time, and collaborative opportunities. Among all factors examined, improving skills and knowledge emerged as the most influential factor, followed by willingness to spend time after office hours on research and preference for interdisciplinary collaboration. These results highlight the importance of fostering professional development opportunities and collaborative research environments to enhance research engagement among lecturers.

Table 11 Relationship between the items for Attitude, Perceived Behavioural Control and Research Collaboration Preference with conducting research and publication using the Spearman rho's Correlation Test

	Factors of conducting research and publication based on the TPB constructs	I like to conduct research and publication.
Attitude	1. Conducting and publishing research is challenging.	.009
	2. Conducting and publishing research is costly.	.048
	3. Conducting and publishing research is time-consuming.	.037
	4. I conduct and publish research to improve my skills and knowledge.	**.558****
	5. I conduct and publish research to get the university recognition.	**.313***
	6. I conduct and publish research to enhance my yearly appraisal.	**.250***
	7. I conduct and publish research to get promotions in my career.	**.266***
Perceived Behavioural Control	8. I am willing to self-fund my research and publication.	0.070
	9. I am willing to use my time after the office hours for research and publication.	**.487****
	10. I prefer to conduct and publish research individually.	.054

Research Collaboration Preference	11. I prefer to conduct and publish research in a team.	.182
	12. I prefer to have team members from my faculty.	**.266***
	13. I prefer to have team members from other faculties.	**.444****

Note: * p<0.05, **p<0.01

CONCLUSION AND RECOMMENDATIONS

This study investigated the factors influencing lecturers' engagement in research and publication activities through the lens of the TPB. The findings revealed that conference proceedings and indexed journals were the most preferred publication outlets among lecturers, while quantitative research was the most frequently employed research method. Although qualitative and mixed-methods approaches were also utilized, the findings indicate a stronger inclination toward quantitative methodologies among the respondents.

The study further demonstrated that lecturers generally possessed positive attitudes toward conducting and publishing research. Respondents strongly agreed that research contributes to the enhancement of their skills and knowledge, while also supporting professional development, university recognition, yearly appraisal, and career advancement. These findings support the TPB proposition that favourable attitudes towards a behaviour strengthen behavioural intention and increase the likelihood of performing the behaviour (Ajzen, 1991). The results are also consistent with the findings of Sahudin et al. (2023), who reported that positive attitudes significantly influence academic research productivity among university lecturers.

In terms of perceived behavioural control, lecturers expressed a willingness to devote personal time and resources to research activities, particularly through conducting research outside official working hours. The significant positive relationship between willingness to spend time after office hours and preference for conducting research suggests that personal commitment remains an important contributor to research engagement. This finding supports the TPB perspective that individuals who perceive greater control over their ability to perform a behaviour are more likely to engage in that behaviour (Ajzen, 1991; Yeoh et al., 2023).

The study also highlighted the importance of research collaboration preferences in shaping research and publication behaviour. Lecturers exhibited a stronger preference for conducting research collaboratively rather than individually. Furthermore, significant positive relationships were identified between research interest and preferences for collaborating with colleagues from both the same and different faculties, with interdisciplinary collaboration demonstrating a stronger relationship. These findings support previous studies which emphasised that collaborative research environments enhance research capacity, facilitate knowledge sharing, and improve publication productivity (Gilmour, 2024; Owan et al., 2024). The results further support the view that collaboration strengthens academic engagement by providing access to diverse expertise, networks, and institutional support.

Among all factors examined, improving skills and knowledge emerged as the strongest predictor associated with lecturers' preference for conducting research and publication activities. This finding suggests that intrinsic motivations may be more influential than perceived barriers such as cost, challenge, or time demands. Interestingly, perceptions that research is challenging, costly, and time-consuming were not significantly related to respondents' preference for conducting research and publication, indicating that lecturers continue to engage in scholarly activities despite recognizing these constraints.

Overall, the findings confirm the usefulness of the TPB in explaining lecturers' research and publication practices. Positive attitudes, supportive behavioural control factors, and collaborative preferences collectively contribute to greater research engagement and publication involvement among lecturers. The study therefore

concludes that fostering a supportive research environment is crucial for enhancing research productivity within higher education institutions.

Based on the findings, several recommendations are proposed. First, universities should continue to cultivate positive research attitudes by providing opportunities for professional development, research training, and recognition of research achievements. Second, institutional support mechanisms such as workload management, research grants, and publication incentives should be strengthened to enhance lecturers' perceived behavioural control. Third, universities should actively encourage interdisciplinary and interfaculty research collaborations through research clusters, collaborative grants, and mentoring programmes. Finally, future studies should include larger and more diverse samples across multiple universities to improve the generalisability of findings and further explore additional factors influencing research and publication productivity among academics.

In conclusion, lecturers' engagement in research and publication is shaped by a combination of motivational, behavioural, and collaborative factors. Strengthening these factors will enable higher education institutions to enhance research culture, increase scholarly output, and contribute more effectively to knowledge generation and academic excellence.

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