






Rhetorical Moves and Metadiscourse in English Abstracts of Research Articles and Masters' Theses

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Abstract

Rhetorical communication and metadiscourse devices are important for understanding the rhetorical negotiations involved in academic texts. Research studies comparing these two phases of the analysis of English abstracts of research articles and Master's theses written by non-native English writers are limited. Three corpora of abstracts in the field of business were analyzed for their rhetorical moves using Hyland's (2000) model and metadiscourse markers in the moves using Hyland's (2005) metadiscourse taxonomy. Some striking similarities and differences were found among the three sets of data. Purpose, Method, and Product moves were found with different degrees of occurrences, while the Introduction and Conclusion moves occurred infrequently. The employment of interactive devices outnumbered that of interactional devices. Transitions and self-mention were the most frequent markers in the international corpus, while frame markers and attitude markers were found extensively in the two Thai-based corpora. The findings of the analysis of the two related genres shed light on the genre variations which were derived from genre-specific features. This can be ascribed to the dynamic nature of research articles as professional genres and theses as educational genres. Additionally, this study provides inexperienced non-native writers with a deeper understanding of the rhetorical structure and metadiscourse devices realized in research articles and theses.

Keywords: abstract writing, business, metadiscourse, rhetorical structure, thesis writing

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Introduction

Writing a good abstract is challenging for researchers, particularly non-native English writers or inexperienced researchers who are encouraged to write their abstracts in English. This is because most indexed journals require an English version of the abstracts for publication (Lorés, 2004). To widen their research papers internationally, research writers in any discipline have to organize their English abstracts not only informatively but also convincingly (Jiang & Hyland, 2017; Hyland, 2000; Hyland, 2005; Pho, 2008). However, it remains a serious concern for non-native English writers because writing an English abstract involves not only grammatical knowledge but also rhetorical structure and linguistic features.

Results of several studies provide insightful information about the usefulness of communicative analysis or move analysis to the novice and non-native writers (Samraj, 2005, Swales, 1990). This is because authentic text analysis demonstrates the structural patterns which can be directly applied especially in pedagogical sectors. Particularly, move-based analysis which is one of the genre-based approaches, yields fruitful findings as well as helps to understand academic writing conventions used in discourse communities. Thus, a move-based analysis is considered as a top-down approach and its focus is on the hierarchical schematic structures of texts (Nwogu, 1997). 'Move' means a discursual segment that performs a particular communicative function (Swales, 2004). It can be said that a move analysis provides a clear picture of the RA genres. The structural patterns obtained from an analysis of rhetorical moves supports non-native writers in organizing their research papers to meet a wider international published setting (Kanoksilapatham, 2009; Loi et al., 2016; Lorés, 2004). Therefore, to understand the structure of abstracts, a move-based approach should be adopted and applied.

Apart from the propositional content, metadiscourse is another level of writing which helps readers read, understand and interpret what is written (Ozdemir & Longo, 2014). Metadiscourse is a term used frequently in discourse analysis studies to refer to the “ways in which writers and speakers interact through their use of language with readers and listeners” (Hyland, 2017, p.16). “Metadiscourse demonstrates the workings of the author’s recipient design filter, spelling out how he or she intends a message to be understood” (Hyland & Jiang, 2018, p.20). In addition, through the lens of genre as a social activity, metadiscourse plays an important role in academic writing. As Hyland (2005) highlighted, it shows the ways writers interact with their subject matter and readers, displaying the “strategies used by members of different social groups (p. 41)”. Because the key function of metadiscourse is interacting with an audience by linking texts with contexts, it has been extensively applied to “explore patterns of interaction, most commonly in an academic register, in different languages and genres” (Hyland & Jiang, 2018, p. 20). As suggested in the literature, writers in different disciplinary communities engage themselves, their work and their readers in different styles, like those writers in the humanities and social sciences who express themselves far more explicitly and communicate far more personally in their writing than those writers in the science and engineering fields (Hyland, 2005).

Previous research studies have examined metadiscourse in different types of genres such as students' writing, RAs, and theses. Some researchers focused on abstract sections of RAs (e.g., Alghazo et al., 2021; Gillaerts & Van de Velde, 2010; Nur et al., 2021) and some have identified introduction sections (e.g., Kawase, 2015, Rubio, 2011). This is because a well-organized research abstract is persuasive in its nature and attracts readers' attention. As such, writers use metadiscourse markers to persuade their readers. Metadiscourse can be realized by a variety of linguistic forms (i.e., however, therefore, perhaps, certainly), which will assist the readers to understand the texts better in both linguistically and communicatively (Ozdemir & Longo, 2014). That is, the usage is purposively connecting readers with the texts being read. For example, logical connectives (thus, therefore, etc.), boosters (obviously, clearly, etc.) are considered as linguistic resources which help readers to process written text (Hyland, 2004). As such, a metadiscourse device is one of strategies writers use extensively to achieve their communicative purposes or express their claims when writing abstracts (Cao & Hu, 2014; Ngai et al., 2018).

In the literature, there are some interesting results on the move structure and linguistic expressions of abstracts. For example, Nur et al. (2021) who analyzed RA abstracts in the field of applied linguistics, found that three moves (Purpose, Method, Finding) were used heavily by Indonesian writers, while the Introduction and Conclusion moves were only used moderately. Also, the use of interactive metadiscourse was far more frequent than interactional metadiscourse devices and most of them were employed to describe the method and results of the study. This is because the Indonesian writers were more concerned about the flow of the texts. Text organization and convincing their readers were more of a priority than interaction with their potential readers. El-Dakhs (2018) compared the metadiscoursal resources employed in theses and research articles and found the extensive use of transitions, evidentials and hedges. Conversely, code-glosses and self-mentions were found more frequently in abstracts of RAs. In a study conducted by Alotaibi (2015), Arabic abstracts tended to rely on transition markers, while English abstracts preferred using frame markers and code-glosses. Self-mentions were infrequent in both sets of data.

It can be seen that analyzing the rhetorical moves and metadiscourse markers deployed in each move yields great benefits and also broadens inexperienced writers' knowledge of the genre-based approach to academic writing. The findings from an authentic analysis raise their awareness and help them get a clearer picture of how abstracts are constructed and also lead to some insightful knowledge into the pedagogical implications. Therefore, the present study aims to analyze the rhetorical moves and metadiscoursal markers in the abstracts in three different corpora. The first two groups were English RA abstracts written by Thai and non-Thai writers. The third corpus consisted of abstracts of masters' theses written by Thai graduate students. Based on our knowledge, research studies focusing on these characteristics are scarce, particularly in the field of business. Generally, theses abstracts have received relatively less attention than RA abstracts since their readership is much more limited. However, the organization of theses abstracts is important and thesis writers are expected to convert their theses to RAs to reach a wider audience. Although they are different genres, they remain relevant in nature and share some common features (Pramoolsook, 2009) and numerous theses

or dissertations are cited literally in books or RAs. These lead to the focus of our research. We raise two objectives; 1) to identify the rhetorical moves of the abstracts of RAs and theses, and 2) to examine how those moves are realized with the use of metadiscourse devices. The rhetorical moves identified and the metadiscourse resources are compared to show the similarities and differences among the three corpora.

Methodology

1. Corpora and Data Collection

Abstracts in the business field were the focus of the present study. This is because the business field is a dynamic discipline which lacks genre research at present. As stated by Amidon (2008, p. 452), business communication is “in sore need of more research” in various genres like writing for publication (Hernon & Schwartz, 2010). Studies of abstracts in the field of business or business-related studies have been underexplored. Only a few studies have focused on genre-based analysis of RAs in the field of business such as Piqué-Noguera, (2012) and Alsharif (2022). Piqué-Noguera, (2012) examined linguistic usage in the abstracts while Alsharif (2022) analyzed the rhetorical moves employed in the introduction sections of RAs. Their focuses were different from the present study, which investigated rhetorical moves and metadiscoursal devices in abstracts in business studies.

Three corpora were used in the present study; namely the international corpus, the Thai corpus, and the thesis corpus. Each corpus contained 30 abstracts. The International corpus included RA abstracts randomly selected from prestigious journals. The titles and their impact factors in the year 2021 (shown in brackets) were “Journal of World Business (8.635)”, “International Business Review (8.047)”, and “Journal of Business Research (10.969)”. These journals were provided by Elsevier. The Thai corpus included abstracts of RAs randomly taken from three high-profile journals published during the years 2020-2021 by leading universities in Thailand. They were the Journal of Business Administration, Creative Business and Sustainability Journal, and Kasetsart Applied Business Journal. These journals were indexed as top-tier journals and placed in the Tier 1 group provided by the Thai-Journal Citation Index Center (TCI), which can be accessed through <https://tci-thailand.org/>. The Thesis corpus consisted of 30 English abstracts of masters’ theses in business management written by Thai graduate students during the years 2013-2018 which are available at the time of the data collection. These abstracts were randomly drawn from the university’s Master’s theses database where the authors work. The original language of the theses was Thai, but all these theses were required to provide abstracts in both Thai and English. The analysis of the thesis corpus was expected to show the current practices in theses written by business graduate students. The aim was to reflect genre-based writing in EFL contexts and the results of the analysis of the three corpora could raise the awareness of Thai writers and novices (graduate students) in writing abstracts. The reason for this was that graduate students are required to reduce their thesis papers to RAs in order to qualify for a degree and also to gain a wider readership. In addition, the similarities or differences found between the three sets of data should provide an insightful understanding of the rhetorical structures of the three types of abstracts.

2. Analytical Framework and Coding

Hyland's (2000) model was used as the analytical framework for the move analysis. It was selected because of its ease of implementation and wide use in the literature (e.g., Alotaibi, 2015; El-Dakhs, 2018; Kaya & Yağız, 2020; Pratiwi & Kurniawan, 2021). The model originally consisted of the five main rhetorical moves including Introduction, Purpose, Method, Product, and Conclusion as presented in Table 1. Also, the Introduction and Purpose moves of Hyland's (2000) model were separated and stated clearly to include the communicative function of the units. As such, it is the most suitable model for the present study.

The function of the text boundary was used as the main point for coding the moves in the three corpora. However, linguistic signaling words in the moves were important because they were used as indicators to capture the boundaries of the moves. In other words, they corresponded to the communicative function of each move and facilitated the identification process. The frequency of occurrence was recorded and then assigned according to the frequency criteria developed by Kanoksilapatham (2005)'s criteria, which classifies the frequencies of occurrence of each move which include obligatory, conventional, and optional moves (i.e. 100%, 60%-99%, and less than 60% of the corpora, respectively).

Hyland's (2005) discursal model was used to analyze the metadiscourse resources in the three corpora. This framework is widely used in the previous literature (e.g., Alghazo, et al., 2021; Alotaibi, 2015; El-Dakhs, 2018; Wei & Dueng, 2019) and comprehensively illustrates the text units. The model contains two major categories as shown in Table 2. The 'interactive' category was divided into five modes including Transitions, Frame markers, Endophoric markers, Evidentials, and Code glosses. These features allow the writers to manage the information flow. The second category is called 'interactional' which focuses on the involvement of the reader in the texts. This means they show the writers' persona and a tenor consistent with the community conventions. Five of these conventions are Hedges, Boosters, Attitude markers, and Self-mentions. There were two stages in identifying the metadiscourse markers using Antconc software (Anthony, 2011) and manual analysis. First, plain texts from each abstract were uploaded to the software and then lists of most the common metadiscourse words and phrases suggested in previous studies (Alotaibi, 2015; El-Dakhs, 2018, Hyland, 2005; Hyland & Jiang, 2018; Nur et al., 2021) were inserted into the search field to check if they appeared in any of the move units. All metadiscourse devices identified were listed separately according to each move. In the manual stage, all abstracts were read and highlighted manually to identify the metadiscoursal features. These two stages were conducted in order to strengthen the accuracy of the analysis and to confirm the occurrence of the markers. The metadiscoursal devices identified were counted and their frequencies presented and compared among the three sets of corpora. By following Hyland & Jiang's (2018) example, the present study omitted both *and* and *or* from the counts of transitions if they acted as "default options of marking conjunctive relations of addition and alternation rather than rhetorical strategies." (p. 21). Identifying these manually ensured the presence of each of the markers.

To access each analyzed abstract more easily, all 90 abstracts from the three corpora were codified separately (I1-I30) for the international corpus, T1-T30 for the Thai corpus and Th for the Thesis corpus.

Table 1

Hyland's (2000) Move Model

Move	Function
Introduction	Establishes context of the paper and motivates the research or discussion.
Purpose	Indicates purpose, thesis or hypothesis, outlines the intention behind the paper.
Method	Provides information on design, procedures, assumption, approach, data, etc.
Product	States main findings or results, the argument, or what was accomplished.
Conclusion	Interprets or extends results beyond scope of paper, draws inferences, points to applications or wider implications.

Table 2

Adaptation of Hyland's (2005) Taxonomy of Metadiscourse

Category	Function	Examples*
Interactive	Help to guide the reader through the text	Resources
Transitions	expresses relations between main clauses	in addition; but; thus; moreover; so that; in order to; then; next; also; by the way; additionally; furthermore; to this end
Frame markers	refer to discourse acts, sequences or stages	finally; to conclude; my purpose is; to sum up; the finding shows; the research (paper, study)
Endophoric markers	refer to information in other parts of the text	noted above; see Fig; in section X; earlier
Evidentials	refer to information from other texts	according to X; Z states; based on (well-known theory/framework/model);
Code glosses	elaborate propositional meanings	for instance; for example; namely; called; that is; e.g.; i.e.; such as; in other words; specifically; generally; indeed; usually; that means
Interactional	Involve the reader in the text	Resources

Table 2 (Continued)

Category	Function	Examples*
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Interactional	Involve the reader in the text	Resources
Hedges	withhold commitment and open dialogue	might; perhaps; possible; about; may; unclear; quite; rather; appear; expect; could be; likely, tend to; seem to be; in general
Boosters	emphasize certainly or close dialogue	in fact; definitely; it is clear; confirm; reveal; evident; undoubtedly; as expected; prove; doubles; truly; sure
Attitude markers	express writer's attitude to proposition	unfortunately; I agree; surprisingly; interesting; amazing; substantial; crucial; significantly; critical; notable; useful; important; necessary;
Self-mentions	explicit references to author(s)	I; we; my; me; our; the researcher
Engagement markers	explicitly build relationship with reader	consider; note that; you can see that; by the way

Note. Examples or resources are adapted from Alotaibi (2015); El-Dakhs (2018); Hyland and Jiang (2018); Nur et al. (2021).

3. Assuring Reliability and Validity

Since the identification of moves was based on function, it can be criticized for its subjectivity (Kawase, 2015). Besides both authors, an experienced invited coder, who was an English lecturer in a university and skilled in text analysis, was invited to code both the rhetorical moves and the metadiscourse devices of each move. Thirty percent of the abstracts from the entire corpora were selected randomly and shown to the invited coder. To obtain agreement, move units from the coders needed to be identical in terms of move(s), their position in the discourse, and the sequence of the moves. Also, the metadiscourse devices employed in each move must be identical. There was a discussion between coders when there were any disagreements. Thus, the results of both types of analyses needed to arrive at a consensus. Both authors and an invited coder worked independently when analyzing the abstracts and achieved an inter-rater agreement of 95% before resolving disagreements.

Results and Discussion

The results are divided into two subsections in accordance with the rhetorical moves and metadiscourse devices as stated above. In order to get a clear picture of the moves and metadiscourse found in the present study, the excerpts taken from the corpora were displayed as examples of the realizations of moves and metadiscourse resources. The reference sources are provided after each example signalled, for example, by I1 which refers to RA abstract number 1 from the international corpus, while T1 means RA abstract number 1 from the Thai corpus, and Th1 is the thesis abstract number 1 from the Thesis corpus.

1. The Frequency of Rhetorical Moves in the Corpora

Table 3 delineates the frequencies of the rhetorical moves found in the abstracts of the three corpora.

Table 3

The Frequency of Moves in the Corpora

Move	International (N=30)	Thai (N=30)	Thesis (N=30)
Introduction (I)	23 (76.66%)	13 (43.33%)	-
Purpose (P)	23 (76.66%)	29 (96.66%)	30 (100%)
Method (M)	26 (86.66%)	27(90%)	30(100%)
Product (Pr)	29 (96.66%)	30 (100%)	30(100%)
Conclusion (C)	14 (46.66%)	19 (63.33%)	1 (3.33%)

Table 3 shows that there were similarities and differences in the occurrence of moves in the three sets of data. The frequencies of the three moves (Purpose, Method, and Product) were relatively high in the three corpora, while the Introduction and the Conclusion moves showed

different degrees of occurrences. The high frequency of occurrence of the Product move was similar to those of previous studies (e.g., Alotaibi, 2015; Kaya & Yağız, 2020; Nur et al., 2019; Zang, et al. 2012). This showed that presenting results was an important move in abstracts in nearly all fields and genres. For example, El-Dakhs (2018) asserted that the high frequency of the Product move may be the result of the professional nature of journals which are strongly competitive situations. This means that the authors are expected to present their research studies in convincing and informative style. The marked differences were the frequencies of the occurrence of the Introduction and Conclusion moves. With regard to the Introduction move, it was a conventional move in the international corpus and an optional move in the Thai corpus. However, it was omitted in the Thesis corpus. The Conclusion move was an optional move in the international corpus, but it was a conventional move in the Thai corpus. Although the frequency of the Conclusion move was optional in the International and Thesis corpora, its frequency in the Thesis corpus was very different from that found in the international corpus. It accounted for 46.66 percent in the international corpus, while it was only 3.33 percent in the Thesis corpus. Only one thesis abstract contained the Conclusion move.

Regarding the frequencies of occurrence of the moves in the Thesis corpus, in which three moves (Purpose, Method, and Product) were obligatory, two moves (Introduction and Conclusion) were less frequent. This is interesting because a previous study of Ren and Li (2011) found that the frequencies of all five moves were relatively high in their thesis abstracts. They believed that this was due to the influence of academic writing regulation. Thus, the supervisor or examiners of the theses play important roles in the shaping of the thesis structure. El-Dakhs (2018) found that strong claims of new knowledge are often presented in the abstracts. Relating to this assumption, the three moves (Purpose, Method, and Product) were dominant in the Thesis corpus. The reasons may be due to the fact that these three moves were always the focus of the research that the gatekeepers (i.e., supervisor/examiner of the theses) tended to look for when reading through these theses. Therefore, thesis writers are taught to write the purposes and methods of the study clearly, and they are also expected to present detailed information about the findings.

The absence of an Introduction moves in the Thesis corpus differed from previous studies (e.g., Ebadi et al., 2019; El-Dakhs, 2018; Ren & Li, 2011). The Introduction move varied in its occurrence in these studies. It was one hundred percent in Ren & Li's (2011) study, while it was slightly less than half of the entire corpora in the studies carried out by El-Dakhs (2018) and Ebadi, et al. (2019). However, in the present study, there was on Introduction move in the Thesis corpus. Ren and Li (2011) pointed out that thesis writers preferred to present their abstracts in an informative rather than a persuasive role. Space limitations in theses were not so restricted as those in the RAs. Thesis writers were also less pressured in seeking readership compared to the RAs. In El-Dakhs' (2018) study, the frequency of the Introduction move in theses abstracts was nearly two times higher than that in RAs. El-Dakhs (2018) believed that writers of the RA abstracts tended to highlight their research topic because of space limitations. This means that writers need to capture their readers' attention by directly stating their research details. Importantly, readership is one of the key factors for research abstract writing. The persuasive role was one of characteristics of the RA abstracts that writers needed to consider

when writing their research abstracts (Ren & Li, 2011). However, this assumption did not apply to the abstracts in the Thesis corpus in the present study. The omission of the Introduction move in the Thesis corpus may reflect the writing practice employed in the disciplinary context. Graduate students tended to follow the thesis structure available in the library provided by their department without careful consideration. This might be one of the reasons for the absence of the Introduction and Conclusion moves. As pointed out by Ebadi et al. (2019), different universities imposed different thesis formats or manuals. Another reason for an infrequent occurrence of the Introduction may be that the thesis writers were not aware of the importance of giving background on their topic to the readers. They opted to jump straight to the purposes, method, and results of their studies. This is because establishing the territory of their research studies and showing the necessities of the topic being studied were demanding and challenging for inexperienced writers since it required skills in seeking the position of the research topic. Therefore, strictly following the guidelines and consulting the well-written theses would be the best approach for inexperienced non-native writers. Although thesis and RA are related genres, RA abstracts represent a professional genre while thesis abstracts are an educational genre (El-Dakhs et al., 2019), so their structural organization should be thoroughly introduced to graduate students. Training on the rhetorical structure of English writing abstracts or genre-related writing should be conducted and taught in all graduate programs.

Another difference was the frequency of the Conclusion move. It was an optional move in the international corpus, while it was included in the conventional group in the Thai corpus. It was noticeably scant in the Thesis corpus, appearing in only one abstract. A possible reason for this absence may be the fact that interpreting the findings or drawing inferences is obviously a difficult skill for novice graduate students. They need to point out clearly and confidently how their findings could benefit wider communities or the literature. The Conclusion move was found to be a conventional move in the research of Nur et al. (2019). They found that writers of abstracts published in local (Indonesia) and international journals ended their abstracts with the conclusion move which appeared in more than 80 percent of each corpus. On the contrary, in a study investigated by El-Dakhs (2018), the conclusion move was optional in both RA and thesis corpora as it occurred in nearly similar frequencies, and also the RA writers tended to provide implications for their studies more than the writers in the thesis corpus. This may result from the professional nature of RA abstracts as writers needed to emphasize the importance of their findings, which are related to theoretical or practical issues in order to attract readership (El-Dakhs, 2018). This is because nowadays RA publication in prestige journals is extremely competitive (Ren & Li, 2011).

Some examples of the rhetorical language used to present the Conclusion move in RAs in both RA corpora are presented in Example 1. Although international writers stated their research contribution to a lesser degree compared to Thai RA writers, their views in interpreting their results were more diverse than those of Thai writers.

Example 1

- 1) Besides **understanding** the role of Bitcoin, the research findings **enable** investors to **plan** their future investment with greater confidence. (T26)
- 2) Overall, this study **contributes** to contemporary international business research by advancing theorization on SME multinationalization. (T6)
- 3) Thus, this study **contributes** to the literature by investigating responses to CSR among generation Y consumers from a cross-cultural perspective. (I4)
- 4) This study **offers** novel insights into the relationship marketing literature and **provides contributions** to fundraising managers. (I17)

2. Distribution of Metadiscoursal Markers in the Moves

To respond to the second aim of the present study, the results concerning the metadiscourse markers found in each move in the three corpora are presented in Table 4.

Table 4

Frequency of Interactive Metadiscourse

Category	<i>I</i>			<i>P</i>			<i>M</i>			<i>Pr</i>			<i>C</i>			Sub Total
	I	T	Th	I	T	Th	I	T	Th	I	T	Th	I	T	Th	
Interactive																
Transition	12	3	-	2	2	1	10	1	-	12	22	15	3	10	-	93
Frame M				16	27	30	2	7	2	3	4	1	6	2	-	100
Endorpic M.																-
evidentials																-
Code glosses				1	1	-	-	1	-	-	7	-				10
Sub-total	12	3	-	19	30	31	12	9	2	15	33	16	9	12	-	203
Interactional																
Hedges	1	1	-							3	4	1	2	3	-	15
Boosters	1	-	-	-	1	-				-	1	-	-	1	-	4
Attitude markers	10	6	-				3	-	-	7	9	6	1	4	-	46
Self-mentions	1	-	-	8	-	-	27	2	-	18	1	1	5	-	-	63
Engagement M.																-
Sub-total	13	7		8	1		30	2		39	2	9	8	7	5	128

Note. I= International corpus; T= Thai corpus; Th=Thesis corpus

Table 4 shows the use of metadiscourse resources in the three sets of data. Three devices, namely ‘endorpic markers’, ‘evidentials’, and ‘engagement markers’ were absent in the three sets of data. The remaining categories varied in their degrees of employment. Overall, the interactive devices outnumbered the interactional devices, accounting for 203 and 128

respectively. For interactive metadiscourse, two resources (Transition and Frame markers) were employed most in all three corpora, but in a different variation. It was found that the international writers relied heavily on transition markers, while the Thai writers (from RA and Thesis corpora) favored Frame markers. Three transition sub-categories were found frequently including contrast (e.g., however, but), addition (e.g., moreover; in addition), consequence (e.g. thus; therefore), as shown in Example 2 below. The international writers tended to use more transitions of contrast, especially in the Introduction and Product moves. The extensive use of transitions was in line with El-Dakhs's (2018) study, who found that transitions were used extensively to describe the results. The use of contrasting expressions in Introduction move was mostly used to establish niches as showed in Example 2(1). It was found that the Thai writers in the RA and Thesis corpora preferred giving additional details in the move for findings.

Example 2: The use of Transitions in different sub-categories

1) ***However**, studies using bibliometric techniques have often attracted criticism for failing to adequately link their derived analytical and visual outputs with theory building and practice improvement. (I12) (Contrast)*

2) ***Therefore**, the results of the research can be used as a model for executives to improve the quality of service in any area to meet consumer needs. (T5) (Consequence)*

3) ***Furthermore**, the corporate image, perceived service quality and customer satisfaction between 3 private hospitals in Nakhon Ratchasima are different. (Th15) (Addition)*

The frame marker device was the most frequent device used by Thai writers in both corpora accounting for 27 and 33 in the Thai RA and Thesis corpora, respectively. However, it was the second most interactive resource to be used in the international corpus which occur in 27 instances. The variation in occurrence was in the Purpose move. Thai writers preferred to state their research aims or objectives using expressions such as “The purpose of this research study is to”, Frame markers are “references to text boundaries or text structure” (Hyland & Jiang, 2018, p. 20). They include sequence, stage, discourse goals, and topic shift. However, announcing discourse goals was favored by Thai writers in both the RA and Thesis corpora as they were used in the opening move in the abstracts. This occurrence was similar to a study conducted by Alotaibi (2015). The key signalling words such as ‘purpose’, ‘objective’, ‘aim’ were employed frequently. The high frequency of usage of frame markers in the Thesis corpus may be due to the fact that the research objective section was one of the key components of the theses, which would normally be a standalone sub-section and stated clearly and distinctly in research papers. Moreover, research aims were one of the required components when writing research papers and they were the target statements which will be reviewed by the theses’ supervisors and committees. Therefore, they had to be included in the abstracts of the theses.

Unlike interactive metadiscourse, the overall usage of the interactional metadiscourse resources was less employed in the three corpora; ‘engagement marker’ was omitted in all corpora, which is similar to previous studies (Alotaibi, 2015; Nur et al., 2019; Ozdemir & Longo, 2014). Among the five sub-categories of interactional markers by Hyland (2005), ‘self-mention’ was the most frequent feature in the international corpus, while ‘attitude marker’ was

the most frequent interactional device in the Thai RA and Thesis corpora. However, the frequencies of the other four features of interactional metadiscourse were infrequent in these two Thai-based corpora.

Surprisingly, the usage of ‘hedge’ was scarce in the present study, and it was mostly found in the Product and Conclusion moves. On the other hand, there was only one instance that appeared in the Thesis corpus, which differed from the results of El-Dakhs’ (2018) and Koutsantoni’s (2006) studies. They found that post-graduate students hedge more than expert writers in their studies. The degree of the usage of hedge may reflect how the graduate students immerse themselves in the disciplinary community. El-Dakhs (2018) believed that if graduate writers expose themselves less to the discourse community, they may “not appropriate their practices well enough to the community’s conventions” (p.57). This concern should raise awareness in genre-based writing practice and be integrated into the pedagogical implications. Example 3 shows hedge employment in some moves in the abstracts.

Example 3

1) *Our finding suggests that U.S. manufacturing firms **may** be able to reduce negative impacts on inventory in a global pandemic and achieve greater inventory efficiency if they can target global customer bases with demand characteristics less correlated with U.S. domestic demand. (I14) (Conclusion move)*

2) *That is, individuals with a high level of online privacy risk were less willing to disclose their personal data, while those with a low level of online privacy risk were significantly more **likely** to disclose such information. (T3) (Product move)*

Compared with the use of hedge markers, booster features were used less frequently. There were no examples of this in the Thesis corpus. It appeared once in the international corpus and three times in the Thai corpus. This is in line with some previous studies’ findings (e.g., Alotaibi, 2015; Nur et al., 2019). These studies found that booster devices were infrequent in their studies. However, Ozdemir and Longo (2014) and Alghazo et al. (2021) reported that boosters were fairly frequently used in their studies. In fact, both hedges and boosters are persuasive devices and the combination of the two features can establish a relationship with the readers (Dafouz-Milne, 2008). Example 4 shows the use of Booster markers.

Example 4

1) *Previous studies have focused on identifying the key features of one ‘ideal’ multinationalization approach but **shed less light on** the potential alternative approaches that firms can use in different situations. (I6)*

2) *The findings of the study **confirmed** the significance of organizational identification, encouraging organizations to enhance this factor. (T27)*

‘Attitude marker’ was the second most frequent features in the international corpus, while it was the most frequent feature in the Thai RA and Thesis corpora. Their occurrence was found with nearly all moves, except for Purpose. The results revealed that most writers used

adjectives showing the necessity or importance of their research. Attitude markers allow a writer to “express attitude to propositions, conveying surprise, obligation, agreement, importance and so on” (Hyland & Jiang, 2018, p. 20). Attitude markers were represented by the use of adjectives and adverbs as in Example 5.

Example 5

1) ..., this study finds that a geographically diversified customer base **significantly** reduced inventory efficiency during the pre-pandemic period, but increased inventory efficiency during the COVID-19 pandemic. (I14)

2) In terms of recommendation, promoting people’s awareness on risk is **crucial** element for increasing insurance purchase demands. The insurance can in turn create warranty of people life and safety. (T10)

3) Training is **importance** for each personnel in the organization and encourages them to work effectively. (Th13)

‘Self-mention’ is an interactional marker which was found frequently in the international corpus and it ranked number one on the list. Its occurrence was mostly in the Method and Production moves. Conversely, it only occurred in 3 and 1 instances in the Thai RA and Thesis corpora, respectively. The limited use of the self-mention device was in line with previous studies, especially those which compared the English abstracts written by native and non-native writers (Alotaibi, 2015; El-Dakhs, 2018; Ghadiyani & Tahirian, 2014). It has been suggested by Ghadiyani and Tahirian (2014) that the limited use of self-mention by non-native writers may result from their lack of English language knowledge or an unintentional mistake. As shown in the case of one Thesis abstract which using “we” as a self-mention device in the Product move (see Example 6(3)). In this regard, when we looked closely at the Thai version of that abstract, the Thai word “ผู้วิจัย” should be translated as “the researcher”. Although this incorrect use of words can be interpreted in different ways, it may be the result of a lack of English language knowledge.

Another reason to explain the lower number of self-mentions in the Thesis corpus may be due to the fact that the writers were more aware of taking personal responsibility for their claims since their status in the discourse community was relatively inferior (El-Dakhs, 2018; Koutsantoni, 2006). As explained by Koutsantoni (2006), despite the fact that RA and theses are related genres, they “differ as regards the status of their authors in academic discourse communities and the power asymmetries between themselves and disciplinary gatekeepers.” (p.19). Thesis writers needed to meet their supervisor’s and examiners’ expectations. All their claims should adhere to their examiners’ expectations and satisfy their requirements. Self-mention devices can sound more personal for thesis writers. In this regard, Wu and Zhu (2015) observed from their study that non-native writers revealed their collective self and took on the role of researcher, which was different from the native English writers. Hyland and Jiang (2018) investigated the metadiscourse devices used in articles in different time spans and written by different authors of different nationalities. They found an increasing trend of self-mentions in metadiscourse. This becomes a persuasive way of allowing expert authors to gain

credit for their research claims. It was also found that self-mention devices were mostly realised in the plural form which allows “authors to create more distance between themselves and their reporting than the first person and so temper a more invasive stance” (Hyland & Jiang, 2018, p. 27). This nature may be one of the reasons to explain the degree of occurrence of markers in the present study, especially in the international corpus. It can be said that the power and social forces that are behind the formation of genres (Koutsantoni, 2006), as well as the rhetorical strategy for constructing authorial identity in research papers, play crucial roles in influencing writers in these two genres (Theses and research articles). Some examples of self-mention devices in the moves are in Example 6.

Example 6

- 1) *We test the relationships between these constructs in a sample of 140 Australian SMEs.. (I30)*
- 2) *In addition, we conducted 15 in-depth interviews consisting of 5 informants from each generation. (T23)*
- 3) *We found that the factors have positive influence on ... (Th26)*

Conclusion

This research study analyzed rhetorical moves and metadiscourse resources in RAs and master’s theses abstracts in the field of business. It was found that five moves in Hyland’s (2000) model occurred in all abstracts, but they were found at different frequencies. Four moves, except for the Conclusion, were conventional moves in the international corpus. In the Thai RA corpus, Product move was obligatory, while the Purpose, Method, and Conclusion moves occurred in a conventional group, and the Introduction was optional move. Distinct difference was found in the use of the moves in the Thesis corpus. For example, the Introduction and Conclusion moves were hardly employed. The other three moves were obligatory. With regard to the metadiscourse analysis, the frequencies of interactive devices outnumbered the interactional resources. Two metadiscourse devices (endorphic markers and evidentials) were missing in the interactive category, while the engagement marker was omitted in the international category.

The authors in the international corpus organized their abstracts with a frequent use of transitions and frame markers. Transitions were found frequently in the Product move, while the frame markers were mostly employed in the Purpose move. In the Thai RA and Thesis corpora, transitions and frame markers were found more frequently than in the other three sub-types of interactive resources, and they were heavily used in the Purpose and Product moves. With regard to interactional metadiscourse, self-mention was the most preferred type followed by attitude markers. It occurred in the Method and Product moves. In contrast, the Thai RA abstracts used more attitude markers, but less self-mention devices. All interactional resources were found less in the Thesis corpus. The variations observed in the present study reflect the disciplinary and practice-oriented nature of the two related genres (RA and Thesis). The greater or lesser usage of rhetorical moves and metadiscourse items in moves is to some extent a result

of the writers' rhetorical ability knowledge in order to respond to the nature of the section of the targeted genre (Kawase, 2015).

The research findings shed light on rhetorical writing in terms of form and function which can be used as a guideline for writing abstracts in the field of business studies, particularly by novice non-native writers. Based on the findings, it can be inferred that the variations in the use of moves and metadiscourse in RA and Thesis may derive from the features specific of each genre and the writing style of the writers. As shown in the use of self-mentions, Thai writers are reluctant to use them, but international authors use them frequently. This may raise the awareness of educators or material designers in developing or integrating the findings into instructional materials for writing classes to assist students in getting familiar with the structure of rhetorical moves and metadiscoursal devices. A knowledge of metadiscourse markers is clearly important for writing instruction because implementing metadiscourse in compositions will help students understand readers' expectations, which could assist them in improving their writing (Hyland, 2005). Therefore, the findings are beneficial for students, especially those in the field of business pursuing their masters' and doctoral degrees, as the findings can serve as guidelines for shaping their RAs or theses in ways expected in their discourse community.

The features in interactive categories help writers present their papers coherently and with convincing arguments, while interactional resources control the extent of personal involvement in the text by directly focusing on the reader's attention, acknowledging uncertainties, and guiding interpretations (Hyland, 2005; Sanford, 2012). Overall, the process of writing RAs for international publication and writing theses for graduation requirements involve many factors, and the authors of both genres need not only language skills and linguistic knowledge, but also conventional practice in certain disciplines. Thus, these two genres are the "results of social negotiations between authors and disciplinary gatekeepers" (Koutsantoni, 2006, p.19).

Recommendations

Since the present study was limited to the analysis of the abstract sections, future research studies should expand their analyses to cover other sections or entire organizational structures of rhetorical research articles or theses. Also, with larger corpora, the findings would present a clearer picture of the rhetorical moves and metadiscoursal devices. Interdisciplinary research is an interesting area for future studies, as it allows us to observe the differences and similarities in move structures and linguistic resources used in research articles and theses across various fields. Moreover, the writing styles may be influenced, to some extent, by the personal and cultural backgrounds of the authors. These factors should be taken into account when conducting textual analysis in the future.

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