

## Rhetorical Structure of the Arabic Patent Abstracts

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### ABSTRACT

Patent abstracts function as an essential part of patents, in which drafters summarize their invention and try to persuade the evaluators to accept their invention. These abstracts also have a crucial function as a useful alternative tool for effective and quick information retrieval. However, there is a scarcity of work on how these abstracts are constructed in Arabic context despite a considerable number of studies in different languages. This study, therefore, examines the rhetorical structure of 60 patent abstracts written in Arabic by Arabic-speaking drafters in the field of Human Necessity (HN) \_ one of the eight classifications that includes patents related to social life\_ following Swales' (1990) Create a Research Space (CARS) model. The results revealed that Arabic patent abstract section consists of five obligatory moves and an optional one. Based on the genre analysis conducted, a proposed rhetorical move/step model which may be useful for patent drafters is developed. These findings are useful for Arabic-speaking drafters and novice inventors for a better understanding of the rhetorical structure commonly applied in their drafting of patent abstracts. A better understanding of how patent abstracts are drafted can improve not only their drafting skills to meet the expectations of the target discourse community, but also the chance for successful patent grants.

**Keywords:** Abstract section; Arabic; genre analysis; move analysis; patent

### INTRODUCTION

Patents are documents granted by a government to inventors giving them the sole right to make, use, and sell their invention. It has been widely accepted that patents are becoming increasingly significant both strategically and economically. The number of patent filings around the world has steadily grown from 600,000 to almost 3.17 million patent applications in the last decade (World Intellectual Property Indicators 2018, p. 24). Similarly, in the Arab world the number of patents filed with the Patent Office of the Cooperation Council for the Arab States of the Gulf (henceforth referred to as GCCPO), which is the only regional patent office in the Arab world (Jomaa, 2016), has steadily increased from 1400 to approximately

33,000 applications in the last decade (World Intellectual Property Indicators 2018, p. 64). This reflects that patents are important indicators for national competitiveness. However, more than 13,000 applications were rejected by patent evaluators (ibid, p. 64). Patent evaluators in the GCCPO have attributed the reasons behind these rejections to the drafters' lack of experience on how to draft their patents (Al-Zubaidi, 2008; Jomaa, 2016). Jomaa (2016) applauds that such a lack of awareness is due to the relative novelty of patent systems to the Arab World. Patent drafters have to persuade the evaluators that their inventions are useful and new. Otherwise, the application faces an increased opportunity of being rejected by the patent office. Patent evaluators claim that some inventors in the Arab world have new and innovative ideas for their inventions, yet, they face language difficulties when they try to describe the invention completely and precisely in order to convince the readers of the novelty of the invention (AL- Riyadh Daily, 2012; Alyaum, 2008; Laventhol, 2015, p.32).

Further difficulty in patent drafting is the structure of the patent. Regardless of its language, patent is a structured document, which typically consists of several sections stipulated in the law, such as a cover page, a description, and claims. Each serves a different communicative purpose. The abstract section, which is the focus of this study, is an essential component of the entire patent documentation that provides a concise summary of the invention and serves a common informative as well as persuasive communicative purpose of introducing an invention. The description section gives detailed background information on the invention. The claims section defines the subject matter sought to be protected by the patent. Patent abstracts are acknowledged to have a crucial function as a useful alternative tool for effective and quick information retrieval (Iwayama, 2003). Through patent abstracts, readers can predict the quality of the invention and decide if the other sections of the patent are worth scanning or not. Quinn (2014) confirms that in writing patent abstracts, drafters should not just represent the object of their invention; they must also try to persuade the evaluators to accept their invention and to establish the importance of their new ideas.

Drafting a well-organized Arabic patent abstract poses difficulties for patent drafters, even for the native Arabic drafters because they need to have a good level of language proficiency, textual and genre knowledge (AL Rahman, 2015; Al-Zubaidi, 2008; Aletiw, 2012). Additionally, what makes drafting an acceptable Arabic patent abstract more difficult is that there is no specific training for drafting patents (Barron, 2016; Al-Zubaidi, 2008). One potential explanation for this might be due to the fact that patent systems are relatively new to the Arab region. GCCPO for example became operational and started granting patents in 2002 (Jomaa, 2016). Arabic patent applications were not written by specialists such as patent attorneys. Instead, they were drafted by inventors themselves (Aljuiad, 2017). Native Arabic drafters, therefore, need to know the structural organization commonly followed to make their abstracts acceptable by their target discourse community. In other words, an appropriate rhetorical move structures that create a successful persuasive abstract need to be followed in order to perform the functions of these abstracts (Swales & Feak, 2003).

### **OBJECTIVES OF THE STUDY**

This study, thus, aims to achieve the following objectives:

1. To examine the rhetorical structure of Arabic patent abstracts written by native Arabic drafters.
2. To develop a rhetorical move/step model of Arabic patent abstracts.

This leads to two research questions, which are (1) How are the rhetorical structures of Arabic patent abstracts written by native Arabic drafters organized?, (2) What rhetorical move/step model of Arabic patent abstracts can be developed?

## LITERATURE REVIEW

Despite the significant role played by patent abstracts and the extremely large number of patents available, studies on patent genre seems to be a neglected field of research (Arinas, 2014; Lamberg, 2013), due to the common practice of comparing the patent document to the research article, since the two documents are rhetorically similar. Both genres contribute to a desirable dissemination of scientific and technical information (Arinas & Guinda, 2010).

Although a large number of studies focused on research articles (Chan and Ebrahimi, 2012; Doró, 2014; Kanoksilapatham, 2005, 2015; Nwogu, 1997; Peacock, 2011; Samraj, 2016; Swales, 1981, 1990, 2004), only a few studies on the rhetorical structures of patents have been conducted. Some studies on patent genre have investigated the rhetorical moves of patent as a whole document (Arinas, 2010; Burk, 2013; Lamberg, 2013; Nanba et al., 2008; Sheremetyeva, 2003), the rhetorical moves of separate sections of patents such as claims (Shinmori et al, 2002), descriptions (Arinas, 2013), or abstracts (Aragonés, 2010). However, what is apparent is the studies on Arabic patents written by Arabic-speaking drafters are still scarce. This study, therefore, will contribute to the scarcity of studies on Arabic patent abstracts.

Although the aforementioned studies have undoubtedly provided a preliminary understanding of the rhetorical structure of patents, the focus is on patents produced in different languages apart from Arabic such as Chinese, Spanish, French and English. Information on the rhetorical structure of Arabic patent abstracts is scanty. Indeed, the only study that analyzed the rhetorical structures in patent abstract section is Aragonés (2009) who conducted a contrastive analysis of patent abstracts written in four languages; Chinese, Spanish, French, and English and across four disciplines medicine, chemistry, telecommunications and IT. Drawing on the model of genre analysis proposed by Swales (1990), her corpus comprised 200 texts, 50 patent abstracts for each language. Aragonés analyzed patent abstracts in terms of their obligatory and optional moves and move order to determine to what extent patent drafters accomplish the communicative purposes of this particular genre. The analysis of the results revealed six component moves, two obligatory moves, along with four optional moves and several sub-divided steps in patent abstracts. The moves that were identified are: (1) *application sector* (optional); (2) *problem-solution* (optional); (3) *object of invention* (obligatory); (4) *technical characteristics* (obligatory); (5) *utility* (optional); and (6) *advantages* (optional). The study concluded that both patent abstractors and translators can benefit from rhetorical move structure in order to communicate appropriately with the readers' expectations as well as to improve the drafting skills.

However, despite the importance of patent abstract writing for patent drafters in general and native Arabic drafters in particular\_ since a large number of Arabic patents get rejected in the Arab region\_ the rhetorical structure of Arabic patent abstracts is still open to question. Therefore, this study is mainly concerned with examining rhetorical moves of Arabic patent abstracts in order to reveal how the genre of patents achieves its persuasive aim. This study will use Swales's (1990) model while making reference to Aragonés's (2009) framework. This study contributes to a better understanding of how Arabic patent abstracts are constructed in order to raise drafters' awareness of what makes an acceptable patent abstracts. Such awareness will enhance the chances for successful patent granting.

## THEORETICAL FRAMEWORK

The present study aims to explore the rhetorical structure of Arabic patent abstracts from a genre analysis perspective in order to determine their main communicative purpose. In this

regard, Kong (1998, p.104) states that “working within the framework of genre move analysis is more powerful in interpreting the rhetorical structures of text typology”.

Various analytical frameworks for analyzing the rhetorical structure of abstracts are available in the literature (e.g. Bhatia, 1993; Salager-Meyer, 1992; Samraj, 2005; Hyland, 2000; Santos, 1996 and Swales, 1990; 2004). Swales’ CARS model (1990) for research article introductions has been selected in order to analyze the rhetorical move structure of Arabic patent abstracts as it provides a clear description of communicative function for each move when compared with Bhatia (1993). It also presents a better understanding about the structure of the rhetorical moves of the Arabic patent abstracts when compared with Samraj (2005) and Hyland (2000). Swales’s (1990) CARS model was selected as a main analytical framework to analyze patent abstracts written in Arabic by Arabic native speakers for many reasons. First, it focused on both forms and communicative functions of a text as achieved in the pattern of moves and different linguistic signals for each move; consequently, it is more useful for academic and professional purposes (Ahmad, 1997). Second, it has been widely adopted by researchers to analyze the introduction or abstract section of various academic or professional genres across disciplines as well as different languages and it is approved to be applicable to Arabic data, and hence adequate to examine most of the rhetorical structure of Arabic abstracts (Alharbi, 2010; Fakhri, 2004; Najjar, 1990). And most importantly, this model was adapted by (Arinas, 2010; lamberg, 2013) in analyzing the rhetorical moves of patent genre across different languages. Therefore, this model is expected to provide a clear description of the communicative purpose of Arabic patent application.

Swales's model consists of three moves as shown in Figure 1. According to Swales(1990), the main aim of Move 1 (Establishing a territory) is to offer readers a rationale for the study by making strong claims that the area of research is significant with reference to previous research or by referring to the topic in general terms. The purpose of Move 2 (Establishing a niche) is to state a gap in the previous research by making strong claims arguing that the previous research has some limitations or claiming that more explanation is needed. The aim of Move 3 (Occupying the niche) is to outline the purposes of the research. In this move, researchers take an active role by justifying their own research. This model capture the logical structural organization of the abstract sections of Arabic patents: while drafting their abstracts, Arabic patent drafters begin by contextualize their abstracts and providing background information to the readers towards “[e]stablishing a niche” and indicating a gap then conclude with “[a]nnouncing present invention”.

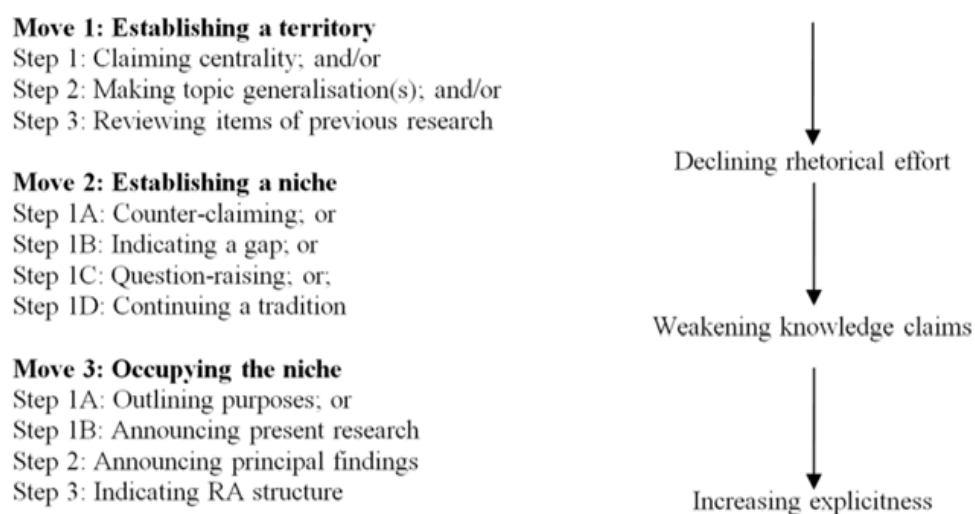


FIGURE 1. Swales’ 1990 model for RA introductions

Aragonés's (2009) classification rhetorical structure, which is based on Swales's model, is also used as a reference framework for the present study. This framework, as shown in Table 1 is the only available move model developed for analysing patent abstracts.

TABLE 1. Aragonés's Six-Move Structure of Patent Abstracts (Aragonés 2009, p. 200)

<b>Move 1</b>	Application sector
<b>Move 2</b>	Problem-solution
<b>Move 3</b>	Object of invention
<b>Move 4</b>	Technical characteristics
<b>Move 5</b>	Utility
<b>Move 6</b>	Advantages

Aragonés's framework revealed six move structures. Based on this model, Object of the Invention (M3) and Technical Characteristics (M4) occurred frequently in the abstract section. Accordingly, they were classified as obligatory moves. The other four moves were optional ones. Aragonés's framework depicts moves as rhetorical tools associated with genre to reveal three main communicative purposes; namely, to describe technically the invention without disclosing it (maintain vagueness and ambiguity); to stress novelty; and to promote the invention so as to attract investment to implement it.

Aragonés's (2009) framework seems suitable for the present study and was employed to analyze the Arabic patent abstracts for two main reasons. First, it is the direct result of an investigation of patent abstracts across different languages and disciplines. It may, hence, describe all the moves found in the Arabic patent abstracts. This framework is believed to provide possible rhetorical moves related to Arabic patent abstracts. Second, it provides a clear description of the communicative functions of patent abstract sections. And most importantly, the initial analysis of the present corpus revealed that it seemed to account for all the various moves found in the present corpus. It is, therefore, reasonable to apply Aragonés's model to the present research.

## METHODOLOGY

The data consist of 60 Arabic patents drafted by native Arabic drafters in the field of Human Necessity. It needs to be pointed out here that the smallest number of abstracts that should be considered for validity purpose could be 30 (Stollera, 2013). However, the researchers in the present study decided to include 60 Arabic patents in order to ensure a more comprehensive coverage of Human Necessity discipline. More specifically, the study corpus can be assumed, to be sufficient since it complies with Aragonés (2007) study in which a similar number of corpus was chosen in order to validate the findings of the same genre across four languages.

Human Necessity discipline, which represents soft sciences, was chosen since it is of interest to different patent readers as it includes patents related to social life and contains the following subsections: agriculture, foodstuffs, tobacco, personal or domestic articles, health, life savings, and amusement. A decision was made to choose abstracts from a single discipline since it has been confirmed that different disciplines have their writing conventions (Anthony, 1999; Samraj, 2002, 2004). Previous research has confirmed the differences between soft and hard disciplines. In other words, writers in different disciplines need to "represent their work in different ways"(Hyland, 2008: 12).

The Arabic patents are retrieved from the GCCPO website (<https://www.gccpo.org>) which is the only website that represents a regional Arab patent office at the time of research. These patents are considered standard and accepted ones because they are the final revised versions officially published on the website. Patents were collected from issues published between 2008-2018 due to the small number of accepted patents each year. These patents

would reflect the writing practice of this genre by Arabic native speakers. To create a corpus, the *abstracts* of these patents were copied and pasted onto a separate file. Then they were randomly coded and classified according to the year of publication; therefore, a PA 27: (2008) *foodstuff means* "Patent Abstract Number 27 in the subfield of foodstuffs and published in 2008", for the purposes of identification and easier access. Only abstracts drafted by native Arabic drafters were chosen from the identified discipline. In cases where abstracts were written by more than one drafter, it was assumed that all drafters share similar nationality and language backgrounds. This criterion was essential in order to keep to a minimum the rhetorical influence from other languages on those of the Arabic patents. Evidence was gathered from short biodata entries such as the name and affiliation of the drafters since drafters with Arab names are likely to be Arabic native speakers. The number of words used in each abstract ranged from 50 to 200 words. The total number of words for the present study of patent abstracts consisted of 7,045 words.

Before analyzing each patent's Abstract section, the whole patent was read several times in order to get a better understanding of the presented invention. Move identification in the current corpus was conducted manually. Swales' CARS model (1990) and Aragonés's (2010) framework were adopted as the initial analytical framework for the current study (see Figure 1 and Table 1). Accordingly, the analysis of the Arabic patent abstracts is the result of a combined modified version of the two abovementioned models. Moves and their steps were identified by assigning the communicative function of each text unit relying on the context and linguistic clues. For instance, in identifying Move 2: problem-solution, negative articles such as *لا* 'adam, *لا* *lā* and *لا* *ghaiyr* all of which mean "not", were an explicit indicator of a gap in the previous inventions. An example of negative quantifiers is shown below:

*Example 1:*

وتعتبر آلات تحضير القهوة المعروفة *غير* مناسبة لتحضير القهوة العربية, حيث أنها لا توفر خاصية الغلي البطيء على درجات حرارة معينة وفترات محددة.

The available coffee makers are considered **not** suitable for preparing Arabic coffee as they do **not** provide boiling under certain temperatures and for limited periods.

(PA 8: domestic articles 2016)

The use of the negative article *غير* (not) *ghaiyr*, and *لا* (no) *lā* in the sentence above indicates that there are shortcomings in previous inventions and gives the drafter a rationale for conducting the invention as a solution. Therefore, this extract can be coded as M2. However, in cases where lexical items were less obvious, the identification of Moves was made based on inferencing from the context of the text, in which a Move is identified by understanding the information implied in a specific part of the text.

Upon identifying the Moves and Steps, their frequencies, positions, and sequence were identified and summarized. Calculating the frequency of each move allows for the indication of whether a specific move was obligatory or optional. Obligatory moves are those prevalent ones constituting 60% of abstract sections of the present corpus. According to Kanoksilapatham's (2005) study, a move was considered obligatory if the frequency of its occurrence is not less than 60%. On the contrary, if a move occurs less than 60% of the corpus, it was considered optional. Since move analysis involves a certain degree of subjectivity (Crookes, 1986), and to get higher reliability in the findings, an inter-rater, who is a Professor specialist in genre analysis and a native speaker of Arabic randomly analyzed 25% of the abstracts in current corpus separately, yielding a high inter-rater reliability rate (96%).

## RESULTS AND DISCUSSION

### MOVE STRUCTURE OF ARABIC PATENT ABSTRACTS

A close examination of the entire corpus revealed that an Arabic patent abstract comprises six component moves which were identified based on their rhetorical functions; the move structure for Arabic patent abstract can be summarized as follows:

TABLE 2. Frequencies of Occurrence of Component Moves in Arabic Patent Abstracts (N = 60)

	Component Moves	Frequency	Percentage	Obligatory\ Optional
1	Introducing the invention	59	98%	Obligatory
2	Problem- Solution	15	25%	Optional
3	Objectives of the Invention	56	93%	Obligatory
4	Utility	55	92%	Obligatory
5	Technical Characteristics	54	90%	Obligatory
6	Advantages	46	76%	Obligatory

Table 2 shows the results obtained from analyzing the corpus of 60 Arabic patent abstracts, including six component moves, the frequency and percentage of their occurrences along with their classification into obligatory or optional moves.

As can be seen from Table 2, Move 1 (Introducing the invention), Move 3 (Objectives of the invention), Move 4 (Utility) and Move 5 (Technical Characteristics) are the most frequent moves with the occurrence of 98%, 93%, 92% and 90% respectively and they have proved to be obligatory in the corpus. Similarly, Move 6 (Advantages) is considered an obligatory move. It appeared in over half of the abstracts with a percentage of occurrences of 76%. However, Move 2 (Problem-Solution) is the least common rhetorical move used in the corpus, representing only 25% of the moves occurring in the corpus, thus, it can be considered as an optional move in all the analyzed abstracts. These findings are not in line with that of Aragonés (2009) which revealed that only Moves 3 and 5 of the patent abstracts sections are obligatory. The possible explanation for this inconsistency may be due to possible language and discipline specific characteristics.

In the subsequent sub-sections, each rhetorical move will be identified in more details and a concise description of its communicative function is provided. For clarification purposes, illustrative examples taken from the present corpus are described and presented. Emphasis (bold) has been added to mark linguistic clues signalling each move. It should be noted that the Arabic abstracts were translated into English by the researcher, who is a native speaker of Arabic, and then verified by a lecturer majoring in translation.

#### MOVE 1: INTRODUCING THE INVENTION (ESTABLISHING A TERRITORY)

This move typically occurs in the initial position in the corpus. It occurs in 98% of the Arabic patent abstracts and therefore it is considered as obligatory rhetorical move in the genre (see Table 2). The major communicative function of Move 1 is to introduce the present invention. This move typically consists of three steps, namely identifying the field of the invention, defining the present invention and repeating the title of the invention. The distribution of the use of these three steps in the Arabic patent corpus are illustrated in Table 3 below.

TABLE 3. The Distribution of the Three Steps of the Introducing Strategy in the Abstract Section of the Arabic Patents

Introducing the invention Strategy	Frequency	Percentage
1- Identifying the field of the invention	30	50%
2- Defining the present invention	23	38%
3- Repeating the title of the invention	7	12%
Total	60	100%

As can be seen in Table 3, while 50 % of the Arabic patent abstracts were initiated with identifying the field of the invention, 38 % of them were opened with defining the present invention. It was also noted that 12 % of the corpus were opened with repeating the same words of the title. However, all these steps are employed in the corpus of this study. These steps are discussed in more details in the following subsections:

#### Step 1: Identifying the field of the invention

The most common form of introducing an invention is when patent drafters identify the field into which the patent falls. In other words, the general technical class of apparatus, process, etc., to which the invention relates. Consider the following examples:

##### Example 2:

يرتبط **مجال** هذا الاختراع بأجهزة تنقية الهواء وعلى وجه التحديد، تنقية دخان السجائر.  
The **field** of this invention relates to air filters, more specifically, the filtering of cigarette smoke.

(PA 5: tobacco 2016)

##### Example 3:

يرتبط **مجال** هذا الاختراع بالمساند الخاصة للكتب المدرسية وبالتحديد فإنه يرتبط بمسند صغير مخصص لخدمة الطالب.  
The **field** of this invention relates to textbook holders, more specifically, it relates to a small textbook holder for students.

(PA 13: personal articles 2007)

As shown in Examples 2 and 3, the drafter introduces the invention in the first sentence of the abstract by referring to the broad area of technology (i.e. air filter and textbook holders) that relates to the invention. The lexical item مجال (field) *majāl* is an explicit indicator of this step.

#### Step 2: Defining the present invention

In introducing their invention, Arabic patent drafters may start the abstract section by defining the present invention. To signal a definition in the Arabic patent abstracts, for example, drafters introduce the key term and it is followed by specific lexical items, such as *هو عبارة عن* (is) *ibāra ʿan, huwa*, يشير إلى (refers to) *Yushīru ilā*, يعتبر (considered) *yuʿtabaru* as in the following excerpts:

##### Example 4:

الإختراع الحالي هو **عبارة** عن قطعة أثاث لتعليق الملابس والقطع المفردة كالغتر والشماغات على سبيل المثال.

The present invention **is** merely a piece of furniture to hang clothes or any single piece of fabric i.e. Ghutra, Shumagh (Arabian headwear).

(Patent 25: Personal Articles 2015)

##### Example 5:

المنتج **عبارة** عن أكياس ورقية شفافة (فلتر) مصنوعة بطريقة ميكانيكية طبيعية غير كيميائية من ورق الكتان النقي الشفاف (فلتر) عالي الجودة.



The product **is** a transparent paper bags (filter) made of high-quality pure linen paper (filter) in a natural non-chemical process.

(Patent 12: foodstuff 2016)

As illustrated in Examples 4 and 5, the drafter begins his/her abstract by defining the invention and then elaborating the definition by providing the components of the given invention. The invention is referred to by key terms such as: *الاختراع الحالي* (the present invention) *al-ikhtirāʿ al-hālī* (the product) *al-muntaj*, followed by the lexical item *عبارة عن* (equivalent to “is”) *ʿibāra ʿan* utilized to define key terms. One of the main goals of such definitions is to help readers to understand the subject matter of the invention, especially non-professional readers such as university students. Thus, readers’ knowledge of specific lexical items in the Arabic patent abstracts should assist them figure out the communicative function of the text segment in which these lexical items are employed.

*Step 3: Repeating the title of the invention*

The least common form of introducing the invention in the Arabic patent abstract section is to repeat the title of the invention. The title is normally stressed by being printed as a separate line, in a different bold font size. Inserting the title in this part offers nothing new as the abstract will be read along with the title.

*Example 6:*

**مظلة مركبات متحركة تثبت على الرصيف**  
**Automated Covering for an Automobile Installed on the Pavement**  
مظلة مركبات متحركة تثبت على الرصيف (مظلة) سهلة التركيب وسهلة الاستخدام  
Automated covering for an automobile installed on the pavement which is  
easy to install and use.  
(PA 43: personal article 2016)

As can be seen from Example 6, the main topic of the invention, as suggested by the title and as stated by the first sentence of the abstract, is to present an automated covering for an automobile installed on the pavement. The drafter begins the first move by repeating the title of the abstract and then elaborating the features of the invention by listing the advantages of the automated covering for an automobile. Generally, it is not considered a good drafting practice assuming that the reader already read the title. This unnecessary repetition shows the drafters' unawareness of the value of space in drafting patent abstracts. The possible reason for repeating the title is to emphasize the importance of the title despite the fact that a title is normally broad and not specific. However, the low frequency of the occurrence of this strategy, 12% of the abstracts of the present corpus were initiated by such a form, indicates that drafters believe that it is unnecessary to repeat the same information mentioned in the title.

In brief, employing *Introducing the Invention Move* as a preliminary rhetorical structure/move serves in demonstrating the drafters’ understanding of the invention topic. The two steps of this move ( Step 1 and 2, excluding Step 3 since it is not considered a good drafting practice) have the same main communicative purpose; that is to provide readers with background information as in the definitions of key terms and identifying the field of the proposed invention. This can be viewed as an attempt to put the research topic into a particular context; that is to establish a research territory and prepare the readers for Move 2 (Problem-solution).

## MOVE 2: PROBLEM-SOLUTION (ESTABLISHING THE NICHE)

This move appears in the second position of the Arabic patent abstracts. The communicative function of this move is to indicate the gap in previous inventions and present a rationale for conducting the invention as a solution. In this corpus, Problem- Solution Move was mainly realized by *Indicating a Gap Step*. Although this move is a vital constituent of the patent abstracts, it accounts for only 25% of the entire corpus, assuming its optional status. The general practice in these abstracts is the absence of an explicit critical stance to indicate the shortcomings of previous inventions. This finding suggests that Arabic patent drafters do not place as much emphasis on identifying the gaps in past inventions, and tend to omit Move 2. A potential explanation for the avoidance of criticizing past inventions is related to cultural differences, where criticizing the work of others is not yet fully acceptable such as the case in Arabic. This claim is supported by Al-Qahtani (2006) who claims that Eastern people, unlike Western culture, prefer to keep silence over criticizing the work of others. Arabic drafters seem to adopt the same style when drafting patent abstracts, which is, avoiding criticizing the previous or current inventions.

This finding is consistent with past studies which revealed that problem-solution Move is not obligatory in patent abstracts written in languages other than Arabic such as English, Chinese, Spanish, and French (Aragonés, 2009). The potential question for this move is: What are the features of the invention that make it different from the solutions previously available?

### Example 7:

طاولة مدرسية كمبيوترية مدمجة مع بعضها كقطعة واحدة تستعمل بوجه خاص في جميع مراحل التعليم بالفصول الدراسية اليومية بدلاً من الطاولات العادية المستخدمة الآن وبدلاً من معمل الكمبيوتر التي لا تفي بالاحتياجات القصوى للطلاب والمعلم والدرس.  
Compact computer school table as one piece is used in general in all educational stages in the daily classrooms **instead of** the currently used normal tables and the computer labs which does not meet all the needs of the student, teacher and lesson.

(PA29: personal articles 2012)

### Example 8:

إن الضعف الملحوظ لدى كثير من الطلبة في مادة الرياضيات وعزوفهم عن دراستها، على الرغم من توفر العديد من الوسائل التعليمية لتدريس مادة الرياضيات، يدل على أنه لا تزال هناك حاجة لدى الكثير من تلاميذ المرحلة الابتدائية بشكل عام إلى وسيلة تحول مادة الرياضيات الجافة إلى مادة محببة للتلميذ. لذا تم ابتكار وسيلة لتدريس مادة الرياضيات لتلاميذ المرحلة الابتدائية. الوسيلة تتكون من حقيبة كبيرة ذات غطاء يحتوي على لوحة معدنية، وأخرى صغيرة بنفس المواصفات، وذلك لتسهيل الشرح باستخدام مجسمات محسوسة ثلاثية الأبعاد.

The low achievement of students in mathematics and their rejection to study it, despite the availability of various teaching aids related to mathematics indicates that there is still a need for a teaching aid for many primary school students in general that change mathematics from difficult into an interesting subject for students. So a new aid is presented to teach mathematics to primary school students. The means (teaching aid) consists of a big bag with a cover containing a metal plate and another small one with the same specifications in order to facilitate illustration using tangible three-dimensional objects.

(PA26: personal articles 2010)

From Example 7, it can be seen that the drafter highlights the shortcomings of the previous technology/ solutions and offers a simple description of the new solution (the invention) in order to distinguish the new invention from the available technology. The use of the lexical term بدلاً من (instead of) *badalan min* indicates an explicit comparison between the previous inventions and the proposed invention. Example 8, on the other hand implicitly communicate a problem-solution where existing problem occur in specific situations in the

Arab region is extensively described and possible solutions are proposed; in this respect, problem- solution move is employed to establish the niche which can be done in the form of comparison of the present invention to previous ones.

### MOVE 3: OBJECTIVES OF THE INVENTION (OCCUPYING THE NICHE)

According to Swales' CARS model, after indicating a gap in the related literature, writers are expected to fill this gap (i.e. *occupying the niche*). The aim of this obligatory move, which appeared in 93% of the corpus of analysis, is to describe the purpose of the invention. The objectives of an invention move is an essential part which informs readers of the main reasons why the invention was created. Readers should be informed of the objectives of the invention in the abstract section since an abstract act as readers' screening device (Huckin, 2006). The absence of this move might make readers reluctant to read the whole patent. The objective of the invention is usually explicitly stated, as shown in the following example:

Example 9:

**والهدف** من الإختراع حماية المركبة من أشعة الشمس وخاصة في البيئة شديدة الحرارة **وكذلك** تحمي من السرقة ومن العبث الخارجي ومن المطر ومن الغبار.

The **purpose** of the invention is to protect the vehicle from the sun rays especially in the extreme hot environment. It **also** protects the car from robbery, outside mess, rain and dust.

(PA 43: personal articles 2016)

Example 10:

**يهدف** الإختراع الحالي الى وقاية الملابس من التلوث بالعوامل الخارجية مثل التلوث البصري بالطعام والشراب و/أو التلوث الميكروبي والسماح لبيئة خصبة للبكتيريا وانتقال العدوى العالقة بالأكمام بالطعام أو الشراب.

The present invention **aims** to protect clothes from contamination by external factors such as visual contamination by food and drink and / or microbial contamination and allow fertile environment for bacteria and transmission of the outstanding infection with the sleeves by food or drink by the exposure of the sleeve unintentionally to food or drink.

(PA 39: personal articles 2018)

In Examples 9 and 10, this move explicitly identifies the main objective of the invention through the use of purposive lexical items **الهدف** (the purpose) *al-hadaf*; **يهدف** (aims) *yahdif* to indicate the main purpose of an invention. In Example 9 the drafter explicitly identifies the main objective of the invention in the first sentence and then expands the focus and purpose of the invention in the second sentence. Patent drafters often use this move to inform the readers why their invention has been introduced. In this way, they can establish the academic territory of their invention and the gap in the market that the invention aims to fill. Therefore, it attempts to persuade the readers of the importance of their invention. In the present corpus, this move is an obligatory component that accounts for 93% of the entire corpus. The same finding has been reported in Aragonés's (2009) study, in which this move appears almost in the whole corpus in each language (English, Chinese, Spanish, and French) with accordance to the same proportion. It is worth noting that the frequent occurrence of this move in the majority of Arabic patent abstracts indicates the importance of presenting the goals and purpose before moving to the next stages of developing the abstracts.

### MOVE 4: UTILITY

This move serves the communicative function of providing information on how to make and use the invention to prove its usefulness. It occurred in 94% of the corpus and therefore it is

considered an obligatory rhetorical move in the genre. On the contrary, Aragonés (2009) asserts its optional status in her corpus of patent abstracts of Chinese, Spanish, French and English. Such contradictory results might be attributed to the fact that writers in different disciplines need to "represent their work in different ways" (Hyland, 2008, p. 12). This is the move where drafters justify the usefulness of their invention using three available options, including 'Describing the process of using the invention', 'Identifying the beneficiaries of the invention', and 'Suggesting different applications for the present invention'.

*Step 1: Describing the process of using the invention*

*Example 11:*

تركيب عشبي لعلاج البشرة الدهنية.... يحضر التركيب بمجرد خلط مكوناته.  
Herbal composition for the treatment of oily skin.... The composition is prepared by **merely** mixing the ingredients.

(PA 46: health 2008)

*Example 12:*

يستخدم الإختراع الحالي للتغلب على الآلام الناتجة عن مرض البواسير و ذلك بعد شرب جرعة واحدة فقط من ناتج غلي أوراق نبات الحناء قبل النوم.  
The present invention is used to overcome the pain caused by hemorrhoids after drinking **only one** portion of the boiled Henna leaves (*Lawsonia inermis*) before going to sleep.

(PA 10: health 2017)

In this step, the drafter tries to convince the readers that the new invention has practical uses by describing the simple procedure followed to use the invention in order to get the expected results by employing specific lexical items such as *بمجرد* (merely) *bi mujarrad* as in Example 11 and *جرعة واحدة فقط* (only one portion) *jur'ā wāḥidah faqaṭ* as in Example 12. The potential question for this step is "how is the invention used?"

*Step 2: Identifying the beneficiaries of the invention*

*Example 13:*

تصميم مذكرة الحرمين الشريفين هي لتذكير الحاج أو المعتمر بعدد مرات الطواف والسعي.....  
سواء كان هذا الحاج أو المعتمر كبير أو صغير السن, رجل أو امرأة.  
The design of the memorandum of the Two Holy Mosques is to remind the pilgrim or Umrah performers of the number of *al-tawaf wa al-sa'y* **whether this pilgrim or Umrah performer is elderly or young, man or woman.**

(PA 9: personal articles 2016)

*Example 14:*

الطحين الصحي صالح لكل الأعمار والفئات (أطفال وكبار السن والرياضيين والمرضى الذين من أمراض داء السكر والقلب وضغط الدم والقرح المعوية وفرط الكوليستروليمييه والضعف والى أولئك الباحثين عن اللياقة والرشاقة والصحة).  
The natural flour is suitable for **all** ages and categories (children, elderly, athletes, patients with diabetes, heart disease, blood pressure, gastric ulcers, hypercholesterolemia, weakness, and those looking for fitness and health).

(PA 32: foodstuffs 2008)

In this step, the drafter's claim about the utility of the invention is supported by identifying variant users of the presented invention. In Example 13, the drafter expects that by the memorandum of Two Holy Mosques, all pilgrimage (Hajj) or Umrah performers will make use of it. Similarly, in Example 14, the drafter expects that the use of his/her natural flour will be useful for all ages and categories. The announcement of the expected beneficiaries of a particular invention may carry a persuasive value; i.e. by promising the readers that the invention will be useful for a particular group of people. The possible persuasive value of this step is that the potential readers will have a better motivation to read

the whole patent if they find it useful for them. The potential question for this step is ‘Who can use the invention?’

*Step 3: Suggesting different applications for the present invention*

This step can be realized by asking the following question: Where to apply the invention? The main function of this step is to state the importance and usefulness of the invention in terms of its application as seen in the following examples:

*Example 15:*

- الإختراع جاهز للإستخدام, فقط يتم لصقه **بأماكن** تواجد الصراصير كالمطابخ و دورات المياه والمغاسل والأماكن التي بها رطوبة كما يمكن لصقه بأي مكان يرغب به المستخدم.  
The invention is ready to use by merely sticking it to **places** of cockroach habitat like kitchens toilets, washing basins and humid places or as desired.  
(PA 23: domestic articles 2008)

*Example 16:*

ويمكن استخدام الإختراع الحالي في أي **مكان** سواء داخل المنزل أو خارجه مثل الإستراحات وغيرها من الأماكن التي تتوفر فيها الطاقة الكهربائية.  
The present invention can be used at any **place** either inside or outside the home, such as parks and other places where electric power is available.  
(PA 27: domestic articles 2014)

As can be seen in Example 15, the main purpose of the proposed invention is to present odourless cockroach repellent substance. The drafter claims that this invention can be applied in different places. The drafter ends his claim by suggesting other places where the users can employ this invention as he/she wishes. Similarly, in Example 16, the drafters suggest different places where the invention can be used either inside or outside the house. By claiming so, the Arabic patent drafters expect that their invention will be useful for particular purpose.

### MOVE 5: TECHNICAL CHARACTERISTICS

This move serves the communicative function of describing the essential technical features of an invention as well as listing the components of the device that is the subject of the invention along with a short explanation of their contents. This rhetorical move appeared in 93% of the corpus, and therefore can be considered an obligatory move of this genre. The identified move *Technical Characteristics* can be compared to the findings of Aragonés's (2009) study in which she revealed that the structure of patent abstracts includes an obligatory “move” of *Technical Characteristics* and that this move is almost omnipresent in the four investigated languages, namely Chinese, Spanish, French and English.

*Example 17:*

جهاز إنقاذ يستخدم لإخراج المحتجزين داخل الآبار الارتوازية. **ويتكون هذا الجهاز** من ذراعين وخطافين لامسك بالمحتجز, وأنبوبة لتزويد المحتجز بالأكسجين, وكاميرا رقمية لتصوير عملية الإنقاذ وقارئ للنبيض للاطمئنان على الحالة الصحية للمحتجز ووحدة انارة لتوضيح الرؤية, و مزود طاقة اما ببطارية جافة أو قابلة للشحن يتم من خلالها تشغيل أجزاء الجهاز بالكهرباء, كما يوجد جهاز ارسال واستقبال بين جهاز الإنقاذ والكابينة الموجودة في العربة المزودة برافعة.  
A rescue device used to rescue the detained person in the artesian wells is provided. **The device consists of** two arms and two hooks to hold the detained person, and a tube to provide the detained person with oxygen, in addition to a digital camera to shot the rescue process, a pulse reader to know the healthy state of the detained person, an illumination unit for clear vision, a power supply, whether dry batteries when the device is run. Moreover, a transmission and receiving device between the rescue device and the cabinet is available in a craned vehicle.

(PA 50: life savings 2011)

Example 18:

مضاد حيوي عشبي يتكون من العسل، الحبة السوداء، الثوم.  
Natural Herbal antibiotic **consists of** red honey, garlic, and black seed powder.

(PA 56: health 2013)

In Examples 17 and 18, the drafter initiated the technical characteristics move by the expression من يتكون... (consists of) *yatakawanu min* followed by listing the components along with the usage of each of them. One of the major observations about *Technical Characteristics Move* is that no cycling occurred in this obligatory component. This could be explained by the fact that many of the technical features from this move are repeated in the claim section with a more detailed description of the technical characteristics as the law requires that: “the claim shall clarify the technical characteristics of the invention”. Article 3(GCC 2000, p. 3).

### MOVE 6: ADVANTAGES

The communicative function of this move is to allow patent drafters to point out the strength of their inventions over the previous ones. The analysis revealed that this move was prevalent in 79% of the corpus. This indicates that Move 6 is an obligatory element in the abstracts of Arabic patents. This finding is not congruent with Aragonés’s (2009) study which demonstrated that this move was found to be an optional move in the whole corpus. This might be attributed to cultural differences or research disciplinary areas. This move provides an answer to the question, “What are the advantages brought by the invention compared to previous ones?” It was used to highlight the significance of the invention and indicate its contribution to the field of human necessity. The following extract exemplifies the function of this move:

Example 19:

مسند صغير مخصص لخدمة الطالب. ويتميز عن غيره من المساند بأنه سهل الاستخدام للطفل حيث يمكنه تصفح الكتاب بكل سهولة وهو محمول بالمسند. ويتميز بأنه ذو تصميم بسيط وهومتين يمكن الاعتماد عليه ويمكن تصنيعه من البلاستيك حتى يكون خفيف الوزن وسهل الحمل والنقل للطالب.

A small book holder designed to help students. The main feature of the holder is that it is **easy** to be used by children where he/she can **easily** browse the book. This holder is **simple** in design and durable. It could be made of plastic to meet the light weight requirement and **easy** handling.

(PA 22: personal article 2008)

Example 20:

مادة طاردة للصراصير صديقة للبيئة وليس لها رائحة أو أضرار على الصحة، وطريقة استخدامها بسيطة وسهلة

An environment friendly odorless cockroach repellent substance that is not hazardous to health, **simple** and **easy** to use.

(PA 23: domestic articles 2008)

In Examples 19 and 20, the drafter clearly describes the competitive advantages offered by the invention compared with the previous ones. The description is provided by positively-loaded lexical items such as بسيط (simple) *basīt* and سهل (easy) *sahl* as well as simple adjectives with positive connotations. A plausible explanation for the use of these simple positively loaded terms is that they offer a greater understanding of the invention subject matter which is essential in the abstract section since it is directed to variety groups of readers, even for readers who are not familiarized with the patent genre or technical issues. Another reasonable explanation for their use is that they permit a fluid and visible emphasis on the advantages of the invention since there is no separate section for the advantages, which

are embedded in abstracts, claims, summaries of the invention and descriptions (Arinas & Guinda, 2010).

Regarding move cycles, the analysis of the present corpus shows that the move structure of the Arabic patent abstracts does not necessarily correspond to the order of drafting patent abstracts indicated by Patent Regulation (Article 2 GCC 2000). Yet, Arabic patent drafters may prefer to draft an abstract section composing the identified moves and steps in a different order. With the presence of all six moves, move 1 *introducing the invention* is usually situated at the beginning of the abstract and move 6, advantages at the end of the abstract. Moreover, some of the identified moves show cyclicity, that is, they can occur several times in one abstract. Moves 4 and 6 are comparatively more cyclical than other moves in this study.

With regard to step cycling, Move 1, Steps 2 and 3 were the most frequent compared with Step 1 due to their high frequency of occurrences in the present corpus. The infrequent use of Step 1 (*repeating the title of the invention*) suggests that drafters may find it unnecessary to repeat the same information mentioned in the title. Among the three steps of Move 4, Step 1 was quite prominent, whereas Steps 2 and 3 were infrequent. The prevalence of Step 1 may indicate the importance of describing the simple procedures followed to use the invention in order to prove the usefulness of an invention.

#### A PROPOSED RHETORICAL MOVE/STEP MODEL OF ARABIC PATENT ABSTRACTS

Having laid out the rhetorical moves and steps found in the Arabic corpus under examination, this section proposes a rhetorical move/step of Arabic patent abstracts in an attempt to present a uniform or standardised Arabic model that can be followed by patent drafters. The proposed model, presented in Figure 2 includes all the obligatory and optional moves and steps which were found to occur in the corpus of the Arabic patent abstracts. Some examples are included for illustrative purpose.

TABLE 4. A proposed rhetorical move/step model of Arabic patent abstracts

Moves	Steps	Examples
<b>Move 1: Introducing the invention</b>	1: Step 1: Identifying the field of the invention and/or	يرتبط <b>مجال</b> هذا الإختراع بالمبيدات الحشرية وعلى وجه الخصوص بمبيد خاص بالصراصير. The <b>field</b> of this invention relates to insecticides, especially cockroaches.
	Step 2 :Defining the invention and/or	الطحين الصحي <b>عبارة عن</b> تركيبة طبيعية تتكون من خمسة أنواع من الحبوب وهي: القمح/ الشعير/ الذرة / الدخن وحبوب الطلع. Natural flour <b>is</b> a mixture consists of 5 types of grains; wheat, barley, corn, millet, and pollen grains.
<b>Move 2: Problem-solution</b>	Step 3: repeating the title of the invention	<b>Automated Covering for an Automobile Installed on the Pavement</b> مظلة مركبات متحركة تثبت على الرصيف.
	Step 1: indicating a gap	تعتبر الات تحضير القهوة المعروفة <b>غير</b> مناسبة لتحضير القهوة العربية، حيث انها لا توفر خاصية الغلي البطيء على درجات حرارة معينة ولفترات محددة. The available coffee makers are considered <b>non</b> suitable for preparing Arabic coffee as it does <b>not</b> provide boiling under certain temperatures and for limited periods.
<b>Move 3: objectives of the invention</b>	Step 1: Describing the purpose of the invention	سجادة الصلاة الالكترونية والتعليمية التفاعلية باستخدام آلية التعرف البصري لوضعية الجسم البشري <b>تهدف</b> الى تعليم الأطفال والشباب باختلاف المذاهب الإسلامية) كيفية أداء الصلوات الإسلامية باستخدام

		برنامج حاسوبي. Interactive tutorial electronic prayer rug using visual recognition mechanism of the status of the human body <b>aims</b> to teach children how to pray properly via a computer program.
<b>Move 4: Utility **</b>	Step 1: Describing the process using the invention and/or	تركيب عشبي لعلاج البشرة الدهنية.... يحضر التركيب <b>بمجرد</b> خلط مكوناته. Herbal composition for the treatment of oily skin.... The composition is prepared by <b>merely</b> mixing the ingredients.
	Step 2: identifying the beneficiaries of the invention and/or	الإختراع الحالي موجه لمن لديه إعاقة شديدة كالشلل الدماغى، الشلل النصفي أو كبار السن ضعيفي العضلات والعظام. This invention is designed for people who have severe disability such as cerebral palsy, hemiplegia, or elderly who has weak muscles and bones.
	Step 3: Suggesting different applications of the invention	يستعمل الإختراع الحالي في المنازل، والمكاتب، والمدارس، والجامعات، والمساجد، والفنادق، والمستشفيات وغيرها من الأماكن. The present invention is used at homes, offices, schools, universities, mosques, hotels, hospitals and other places.
<b>Move 5: Technical characteristics</b>		الإختراع الحالي <b>يشتمل</b> على جهاز لوجي يثبت على الكرسي امام مستخدم الكرسي. This invention <b>includes</b> a tablet device installed on the chair in front of the chair user.
<b>Move 6: Advantages **</b>		الإختراع ذو تصميم هندسي <b>جديد</b> يضمن سهولة الإختراق. The invention has a <b>new</b> engineering design, to ensure easy breach.

\* = optional      \*\* = Cyclical patterning

The proposed model consists of six rhetorical moves, five of which are similar to Aragonés's (2009) model. For instance, Move 6 in Arabic abstracts corresponds to a certain extent to Move 6 used in Aragonés's model, since both moves describe the expected advantages of the invention provided. Accordingly, it is claimed that the abstracts in Arabic patents resemble those found in other languages, especially in Moves 2 to 6.

However, the abstracts analyzed in this study demonstrated differences in the frequency of moves as well as the new steps. More specifically, Aragonés's version of the abstract section does not include specific steps to realize Move 5 such as *Describing the process of using the invention* or *Identifying the beneficiaries of the invention*, which are considered to be very important characteristics of Move 5 to achieve its communicative purpose, i.e. to persuade the readers of the usefulness of the invention. As far as the frequency of moves is concerned, data obtained in the present study revealed five obligatory moves and only one optional one (problem-solution), whereas Aragonés's study revealed two obligatory moves i.e. *Technical characteristics* and *Object of the invention* and the remaining moves were considered optional. A possible explanation for this could be attributed to the differences in disciplines (medicine, chemistry, telecommunications and IT in Aragonés's (2010) vs human necessity in the present analysis). The comparisons also reveal that Aragonés's model does not provide a place for introducing the invention move. In the present study, this move consists of three steps namely *identifying the field of the invention*, *defining the invention* and *repeating the title of the invention*. However, in Aragonés's (2010) model, it seems that the name of this move (Application Sector) does not allow for the inclusion of defining the invention or repeating the title. This could be due to the fact that Arabic writing



has been characterized by the use of ‘territory establishment’ (Alharbi, 2010). In the case of Arabic patent abstracts, this rhetorical feature helps to situate the invention in a particular context.

Overall, it is worth noting that despite the similarities between Aragonés’s (2010) model and the findings of this study with regards to primary structural moves, it is necessary to modify the model in a way that accommodates and represents Arabic patent abstracts. In other words, some new moves and sub-moves are added whereas others are altered. This is because the examination of Arabic corpus has not been studied before.

On the other hand, Swales’s (1990) CARS model has also been found to fit in well with the rhetorical moves of the present corpus. In the proposed model, the first move focuses on establishing the field of the invention by defining it or by showing how the invention is related to a specific field. Then, in Move 2, drafters concentrate on establishing the niche by indicating the shortcomings in the previous inventions and link the present invention with the others in the field. The last four Moves in the abstracts under consideration are similar to CARS’s Move 3 since they indicate the need for the present invention to fill the gap in the previous ones. It could be argued that Occupying the Niche (Moves 3-6 in the present study) is the central move of all because it is the move where patent drafters try to persuade the readers of the usefulness and novelty of the proposed invention. In other words, these moves help to situate the current invention in a particular context in the field.

The proposed rhetorical move/step model of Arabic patent abstracts provide insight on the rhetorical moves that might be used by Arabic patent drafters. Furthermore, having a model to follow can prove its effectiveness to readers who appreciate the persuasive function of patent abstracts.

## CONCLUSION

The present study analyzed Arabic patent abstracts written by native Arabic drafters. Based on Swales's CARS model (1990) and Aragonés’s (2010) framework. The analysis revealed that Arabic patent abstracts comprised of six rhetorical moves which were identified based on their rhetorical functions. *Move 1- introducing the invention*, *Move 3- Object of invention*, *Move 4- Technical characteristics*, *Move 5- Utility* and *Move 6- Advantages* were the obligatory moves while *Move 2- Problem-solution* was the optional move. These findings were in contrast with Aragonés’s (2010), the only available study on patent abstracts written in languages other than Arabic such as English, Chinese, Spanish, and French. Her study revealed that *Move 1- introducing the invention*, *Move 2- Problem-solution*, *Move 5- Utility* and *Move 6- Advantages* were the optional moves. Moreover, while in Aragonés’s (2010) work the move ‘Utility’ appears at the end of the abstract, immediately before the Advantages move. In the present study, the Utility move is always located in the middle of Arabic patent abstracts, directly follows Move 3, *objectives of the invention*.

With respect to move cycles, *Move 6, the Advantages*, was found to be the most cyclical one among the examined abstracts. This tendency is due to the fact that Arabic speaking drafters are aware of the clear persuasive value that this move has. This study has shown that the identified obligatory moves were used by Arabic native drafters in Human Necessity field to make their patent abstract section a stand-alone summary of the whole patent.

It is possible that drafters in the Arab world compare their patent application to accepted published patent documents since past studies indicated that much of the patent discourse is learned by imitation (Guinda and Pellón, 2011) and that "one important resource for writers to learn how to write in acceptable ways in their discipline is published texts in that domain"(Pecorari, 2006, p. 320; Bruce, 2009). Despite this general practice in most Arab

countries, there is a high number of rejected patents which can lead to the assertion that drafting an Arabic patent is a difficult task. Considering all this, the inventor must realize that, just by referring to published patents, s/he will not be able to draft a good quality patent abstract. If the inventor is keen to protect his/her invention, s/he must follow appropriate rhetorical move structures that create a successful persuasive abstract.

Therefore, this study presents a proposed rhetorical move/step model of Arabic patent abstracts based on the move analysis conducted in this study. The proposed rhetorical move/step model of Arabic patent abstracts provides insight on the rhetorical moves that might be used by Arabic patent drafters. Furthermore, having a model to follow can prove its effectiveness to readers who appreciate the persuasive function of a patent abstract. The newly-proposed model allowed for an explanation of similarities and differences between Arabic patent abstracts and those generated in different languages. The result of this study also provides novice patent drafters with the appropriate rhetorical move structure typically applied in drafting Arabic patent abstracts.

In addition, it is expected that this model will help patent drafters to write a successful Arabic patent abstract in a form which will increase their chances for successful patent grants and decrease the number of rejected applications because of improper abstracts writing.

This study was conducted based on a small corpus. Therefore, further research with a larger corpus size and on other sections of patents should be conducted in order to provide a clear picture of how this particular genre is written. Furthermore, patent abstracts written by native Arabic drafters across different disciplines can be compared to examine whether the rhetorical structure developed in this study can be extended to other disciplines as well.

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