

HEDGES IN TOURISM AND HOSPITALITY-RELATED RESEARCH ARTICLES

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***Abstract:** The main purpose of scientific writing is to present objective information based on data and research. However, in English academia, it is common to mitigate one's claims and allow for other points of view by hedging. In this paper, hedges are explored in the post-method sections of 44 research articles (RAs) in the field of tourism and hospitality, written in English by English and Serbian scholars. A number of established similarities and differences regarding the frequency and use of hedges by native and non-native speakers of English are further discussed and conclusions are drawn regarding cross-cultural aspects of scientific writing.*

***Key words:** English, hedging, research articles, rhetoric, Serbian*

1. Introduction

Although research writing is deemed factual and informative, as part of academic genres, it is also done and presented with a potential readership in mind. Its style and register are perceived as neutral, presenting facts and making objective, impersonal claims. However, based on vast array of research into the subject of metadiscourse and hedging (Crismore et al. 1993; Vande Kopple 2002; Hyland 1994, 1998b, 1998c, 2005), academic writing has proved to be also focused on the readers, establishing a dialogue with them, giving room for assumptions and mitigation of the truth value and factuality of the propositions, as well as expressing the writer's caution when making their claims. There is constant interaction between the readers and the authors: firstly, readers try to predict the content and evaluate what is presented, and, conversely, authors take the readers' background knowledge into account, and anticipate their viewpoints and approaches to the text (Hyland 1994: 239).

Hyland (2005: 3) explores the features of metadiscourse as a way to engage in interaction with the audience and the text itself and make decisions about the impact the author wants to create by communicating their ideas. In addition to the interactional view of oral communication, written communication is also considered as interactive, acknowledging potential readers, their assumptions and needs, and choosing rhetorical devices to adjust their writing accordingly (idem: 11). Hedges fall into the category of interpersonal metadiscourse used to "show uncertainty to truth of assertion" (idem: 34). From another perspective, hedges are also used as threat minimizing tools, as devices for expressing caution regarding

the certainty of knowledge or they can also be considered as a politeness strategy (Myers 1989: 7; Salager-Meyer 1994: 151).

How do researchers modify their statements? A vast array of previous research into this matter (Markkanen and Schroeder 1989; Myers 1989; Salager-Meyer 1994; Hyland 1998a; Vold 2006) reveals that there is a whole spectrum of rhetorical devices that come under the umbrella term of 'hedging'. Given that "scientific hedging is primarily a lexical phenomenon" (Hyland 1998a: 104), this paper focuses only on lexical items used as hedges, thus excluding phrasal and syntactic realisations of hedging (e.g., tenses, passives, if-clauses, indirect and parenthetical constructions). The current study investigates 'lexical hedges' (Hyland 1998a) realized by central grammatical categories (modal auxiliaries, lexical verbs, adverbials, adjectives, and nouns) in the post-method sections of research articles (RAs) in the field of tourism and hospitality, written in English by Anglophone and Serbian scholars, with the aim to reveal differences and/or similarities between these two groups of writers as regards their hedging use and its principal lexical forms.

2. Theoretical framework

Various definitions have been proposed for hedging, and its most frequent subcategory of epistemic modality (Hyland 1994; Myers 1989; Crompton 1997; Salager-Meyer 1994). Hedging as a term was first proposed by Lakoff (1972: 195) as referring to "words whose job is to make things more or less fuzzy". Swales (1990: 175) argues that hedges are used for "projecting honesty, modesty and proper caution in self-reports and for diplomatically creating space in areas heavily populated by other researchers."

The main functions of hedging and especially of epistemic modality can be summed up as having two main purposes. The first is helping authors adjust their level of confidence when making certain claims in their research (Rizomilioti 2006: 55) and providing ways of expressing reservation about the absolute accuracy of their findings (Salager-Meyer 1994: 154). In this way, authors can actually present their findings as personal opinions and not as firm statements (Hyland 1996: 434). Meyer (1997: 21, 40) emphasizes that even though hedges are used to weaken the authors' claims, they are actually strengthening the argument in the written discourse as a way to allow for other views on the proposed claims.

The second purpose of hedging is related to the pragmatic aspect of politeness that is established in communication with the reader and can be considered as a positive or negative politeness strategy (Salager-Meyer 1994: 3). According to Hinkel (2005: 29), vagueness, hesitation, uncertainty, and indirectness are also present, in addition to the pragmatic aspect of hedges related to politeness. The politeness theory has its roots in Brown and Levinson's work (1987), who view hedges as a way of avoiding disagreement, their use being considered a negative politeness strategy. This was elaborated further by Myers (1989), but he provided "only a partial account of hedging in scientific discourse" (Hyland 1996: 434).

As mentioned in the introduction, hedges fall under the category of metadiscourse, which has been revisited many times by major authors in this field, such as Hyland (2005), Vande Kopple (1985) and Crismore and Farnsworth (1989). For example, Vande Kopple (1985) classifies hedges as validity markers under the category of textual discourse, whereas Crismore et al. (1993) classifies

hedges as a subcategory belonging to interpersonal metadiscourse. After considering all the different approaches to metadiscourse classifications, Hyland (2005: 49) develops an interpersonal model of metadiscourse with two main categories – interactive, whose main function is 'help to guide the reader through the text', and interactional, meant to “involve the reader in the text”. Hedges are included in the latter group and their aim is to “withhold commitment and open dialogue” (ibid.). Hyland (1998a: 353) argues that hedges underscore the subjective position of the authors, who present their findings as personal opinion, thus demonstrating “plausible reasoning” rather than facts and certain knowledge.

The analysis presented here is anchored in Hyland’s theoretical positions and takes as hedge any lexical means “used to indicate either (a) a lack of complete commitment to the truth of a proposition, or (b) a desire not to express that commitment categorically” (Hyland 1996: 251). Numerous classifications of hedges notwithstanding (e.g., Salager-Meyer 1994; Crompton 1997; Hyland 1998a), here, as mentioned above, we rely on the standard classification into grammatical categories which has been successfully applied in prior related research (e.g., Hyland 1994; Hyland and Milton 1997; Varttala 1999; Demir 2018).

2.1. Previous relevant studies

Although the first investigations regarding politeness and power relations were into spoken language (Holmes 1984; Coates 1987), the research interests later shifted more towards the written language, especially the scientific and academic discourse (Crismore and Farnsworth 1989; Salager-Meyer 1994; Hyland 1994, 1996; Hyland and Milton 1997; Meyer 1997).

For a more insightful overview of the use of hedges in academic writing, a contrastive view of hedging is more than necessary for the speakers of languages other than English, since the elaboration on differences and similarities between the native and non-native practices would help non-native speakers adapt more easily to the requirements of the international academic community (Vold 2006: 62). Furthermore, the disciplinary differences should not be neglected, including the differences in the terminology and rhetorical strategies used (idem: 63).

Numerous previous studies focus on investigating the frequency and functions of hedging in different genres belonging to various scientific disciplines (Myers 1989; Varttala 1999; Rizomilioti 2006; Salager-Meyer 1994). For example, Rizomilioti (2006: 63-64) investigates the so-called downtoners, boosters, and indicators of certainty in Biology, Literary Criticism, and Archaeology corpora, and has found significant differences in the frequency of the parts of speech used across the three corpora, with modal auxiliary verbs and lexical verbs being the predominant categories in all three fields, but to a much higher extent in the Archaeology corpus. Comparing his data with previous research by Hyland (1998a, 1998b), the author concludes that it is difficult to make generalizations about the frequency of epistemic devices in humanities and science, since each discipline demonstrates certain idiosyncrasies; academic writing is not homogenous and the different genres and disciplines need to be further studied (Rizomilioti 2006: 66).

Hyland (2005: 55-57) also observes in his research on metadiscourse in dissertations across six disciplines, with a four-million-word corpus, that hedges are twice as common in the soft fields, which leads us to the conclusion that hedges and metadiscourse are worth exploring in a range of disciplines in order to make a contribution to the possible general overview of metadiscourse. Further, previous

studies have demonstrated that hedging tends to be most frequent in the “more discursive sections” (Hyland 1998a: 153) of RAs, viz. in the Results, Discussion and Conclusion sections, or post-method sections in short, which is why they constitute the object of our present study.

There has also been a growing interest in comparing the use of hedges in academic writing by native and non-native speakers of English (Dontcheva-Navratilova 2016; Chen and Zhang 2017; Demir 2018) or in comparing the use of hedges in different languages (Hinkel 2005; Mirzapour and Mahand 2012; Nasiri 2012) or by authors with different cultural backgrounds (Mauranen 1993). Regarding this topic, non-native English writers have been described as being too direct in their writing, as they do not employ any adequate hedging devices (Hinkel 2005). Hyland (1994: 244) observes that mastering hedging is essential for L2 students, as a way of learning appropriate ways of academic argumentation and is not related to the writer’s proficiency level of the foreign language.

Martin (2001) investigates abstracts chosen at random, written in English and Spanish in the field of psychology. He finds that modality devices are used to a much greater extent in the abstracts written in English, which is explained as a potential avoidance of criticism by international scientific community and a desire for the author's knowledge claim to be accepted by the reader (Martin 2001: 206). The scarce use of modality for mitigating scientific claims in Spanish is explained by the fact that this rhetorical practice has not been conventionalized in Spanish scientific writing practice, since the research community is much smaller and they do not expect criticism from their peers (idem: 207).

In their analysis and comparison of non-native English student writers and native English student writers, Hyland and Milton (1997) observe that non-native writers struggle with expressing reservation or uncertainty about their claims, which is considered a convention in scientific and academic writing, when compared to other genres (Stubbs 1996, qtd. in Hinkel 2005: 30). Hinkel (2005: 31) also found that non-native speakers often exaggerate their “claims due to the comparative prevalence of intensifiers”.

There are not many examples of previous studies regarding the use of hedges in the field of tourism, which is the research focus of this paper. However, one of the recent studies of epistemic modality in tourism research articles (Vuković Vojnović and Jerković 2015: 251) shows that native English speakers make use of hedging mainly in the Discussion/Results sections of their papers, mostly to mitigate their claims and make them less prone to criticism. It has also been observed that epistemic modal auxiliaries formed the most frequent category, with the auxiliary *may* as the most frequent.

3. Corpus and methods

For the purpose of the current study, we have compiled a corpus of post-method sections of RAs in the field of tourism and hospitality written in English by native and non-native (Serbian) writers, taking the name and affiliation of the (first) author as an indicator of nativeness. The NWs sub-corpus (64,318 words) contains the relevant sections of 22 articles written by Anglophone writers, retrieved from reputed journals covered by Scopus within the subject category Tourism, Leisure and Hospitality Management (see Appendix for details). To compile the NNWs sub-corpus (39,752 words), we extracted relevant sections from 22 articles published in national journals, which thematically correspond to the

chosen international publications (see Appendix). The two sub-corpora are comparable enough, since they include the same sections (exclusive of tables and direct quotations from research participants), with *tourism*, *hospitality*, *hotel*, or *travel* as either title words or keywords; the articles were published in the same period (between 2018 and 2021).

As mentioned above, we have focused on lexical items “commonly considered as hedges” (Salager-Meyer 1994: 154) and have drawn on the inventory of items previously identified as potentially performing a hedging function in academic texts (notably Hyland 1998b, 2005). We have combined software-assisted methods with manual coding. First, we retrieved the concordance lines of relevant items in each corpus using the Sketch Engine (Kilgarriff et al. 2014) corpus tool, and then inspected each occurrence, considering the wider context, in order to determine whether it acts as a hedge or not. Both authors of this article coded the identified occurrences independently and then reached an agreement on discrepancies through discussion and consensus. Clusters of hedges were counted separately (e.g., *may suggest* was treated as two hedges). The findings on particular items in each sub-corpus, classified per category, were then combined and compared. To enable comparison between the sub-corpora which differ markedly in size, raw frequencies were normalised per thousand words (hereinafter *ptw*).

Only the items used to tone down the level of the writer’s commitment to the truth or factuality of the proposition were coded as hedges. Thus, for instance, *assume* in example (1) was taken as a hedge, whereas in (2) it was not regarded as such.

- (1) Furthermore, Hu et al. (2020) *assumed* that deep compliance is always effortful (NWs_14)
- (2) Lenders are increasingly *assuming* active roles in interactions with hotel owners... (NWs_8)

What could make the identification of hedges problematic are the not so clear demarcation lines between epistemic and root modality meanings, particularly circumstantial modality. Besides modality markers expressing epistemic possibility (e.g., *may*, *might*, *perhaps*), we also considered as hedges some instances of root modality markers (see Hyland 1998a). Largely, this applies to the cases when a marker in question (typically, a modal auxiliary or an adjective) is coupled with some contextual clues which indicate that there was epistemic uncertainty attached. So, *can* in example (3) was taken as a hedge, while *can* occurring in the phrases *can be seen*, as in (4), was not.

- (3) ..., as these events *can* attract a large number of locals, as well as tourists, and thus have significant economic implications. (NNWs_16)
- (4) As *can* be seen, the likelihood of leaving absolutely no plate waste behind increases significantly when there are fewer people in the family (NWs_7)

Further, evidentiality is seen as a sub-category of epistemic modality, hence epistemic lexical verbs comprise those encoding evidential meanings as well, specifically reporting verbs which “occur as markers of tentativeness in reports of the author’s own or other researchers’ work” (Varttala 1999: 185). As for adverbials, the hedging function may be attributed to both downtoners and adverbials functioning as disjuncts.

4. Findings and discussion

The general findings on hedging in the analysed RAs are presented here, followed by a closer look into each hedging category of the subsections; particular attention is paid to the similarities and differences between the two sub-corpora. For each hedging category, except for modal auxiliaries, the most frequent items are presented in tables in descending order of their normalised frequency (NF). Throughout this section, the bracketed numbers refer to the order in the tables (NWs, NNWs).

4.1. Overview of hedges

The graph below shows the breakdown of the categories of hedges found in our corpus based on NF. It is noteworthy that our findings on hedges used by Anglophone writers agree with those of some previous studies (e.g., Hyland 1996; Demir 2018).

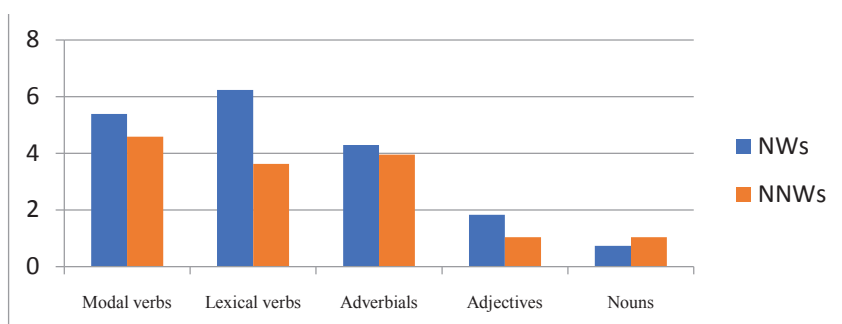


Figure 1. Grammatical categories used to express hedging

It can easily be seen that there are rather great differences between the two sub-corpora. Except for nouns, each hedging category is less represented in the articles from the Serbian journals. The RAs written by NWs are more extensively hedged, as indicated by the overall incidence of hedges in the two sub-corpora (18.47 vs. 14.21 ptw). We can also see that there are some differences in the preferences for hedging categories.

4.2. Modal auxiliaries

Being the principal exponents of epistemic modality, modal auxiliaries are effective means through which writers manipulate the level of precision of their claims, as the following examples illustrate.

- (5) ... tourists' newly acquired knowledge of the foods (and foodways) *may* affect their tasting experiences adversely. (NWs_8)
- (6) In the future, Serbia *could* base its tourist offer on rural areas. (NNWs_9)
- (7) With a prediction that refunds and complaints *should* decline ... (NWs_11)

Although modals turn out to be the major means of hedging in the NNWs sub-corpus, only two (*could*, *would*) out of the six modals found in a hedging

function are more frequent in this sub-corpus, while three modals (*may*, *might*, *could*) are more commonly employed by NWs than by Serbian writers, as shown in Table 1.

	NWs	NNWs
<i>may</i>	2.15	0.35
<i>might</i>	0.34	0.10
<i>can</i>	0.78	1.86
<i>could</i>	1.32	0.78
<i>would</i>	0.62	1.31
<i>should</i>	0.17	0.18

Table 1. Modals used as hedges

As can be seen, *might* and *should* are the least favoured hedges by both groups of authors, and the most striking difference relates to the hedging through the use of modal *may*. *May*, in fact, turns out to be not only the most common modal used by Anglophone writers, but also the most frequent lexical hedge in the articles by NWs. It is, however, more than six times less frequently used by Serbian writers (2.15 vs. 0.35 ptw). On the other hand, *can* is more than twice frequent in the NNWs sub-corpus as compared to the NWs sub-corpus (0.78 vs. 1.86 ptw). What possibly accounts for these discrepancies is that *can* seems to be employed by NNWs in cases where *may* could be a better alternative, as example (8) indicates. Further, recurrent combinations like *can be explained* and *can be concluded* add significantly to the high frequency of *can* in the NNWs articles. It is interesting that, while constituting 40 per cent of the occurrences of *can* in this sub-corpus, these combinations are not found in the NWs articles.

- (8) The paper *can* have a wide scientific, economic and social significance.
(NNWs_8)

4.3. Lexical verbs

Lexical verbs are the hedging category with the most pronounced differences between the two analysed sub-corpora. In the articles written by Anglophone writers, they take primacy over all other word classes, while NNWs use them twice less frequently (6.23 vs. 3.62 ptw). Besides this, the two sub-corpora differ in the variety of verbs employed (NWs 32 items vs. NNWs 26 items). Further differences relate to the types of verbs most commonly used, as shown in Table 2.

NWs		NNWs	
<i>suggest</i>	1.37	<i>conclude</i>	1.53
<i>consider</i>	0.96	<i>think</i>	0.38
<i>Seem</i>	0.54	<i>believe</i>	0.25
<i>appear</i>	0.45	<i>suggest</i>	0.20
<i>Tend</i>	0.42	<i>consider</i>	0.12

Table 2. The most frequent lexical verbs used as hedges

In both sub-corpora, *suggest* and *consider* feature among the top-ranked verbs, albeit with markedly lower frequency in the NNWs articles. In NWs articles, they are followed by “epistemic copulas” (Crompton 1997) (*seem, appear, tend*). While these verbs occur as important devices for softening the authors’ claims in the NWs articles, as examples (9) – (11) illustrate, they are only sparingly used by NNWs (just four instances, i.e. 0.10 ptw altogether). The latter, however, resort more frequently to mental state verbs (*conclude, think, believe*) to convey tentativeness, as in example (11).

- (9) Various sources *suggest* that online sale of tourist and hotel services is recording steady growth ... (NNWs_19)
- (10) ..., Chinese people *tend* to display stronger solidarity and organizational loyalty. (NWs_14)
- (11) Such findings *seem* to corroborate what Francioni (2012) ... (NWs_12)
- (12) ... and many other character traits that are *believed* to be inherent in the service-oriented staff.. (NNWs_19)

It is worth noting that there are other verbs commonly used by NWs, which tend to be quite rare or practically non-existent in the NNWs sub-corpus (e.g. *feel, argue, perceive, see (as), seek*).

4.4. Adverbials

Adverbials are the most diverse class of hedges: there are 49 items used by NWs, 30 of which are also used by NNWs. Compared to the verbal hedges, the use of adverbial hedges displays stronger similarities in the two sub-corpora. Besides a less marked difference in frequency (4.29 vs. 3.95 ptw), we find adverbials of indefinite frequency, quantity, and limitation, among the five top-ranked items in both sub-corpora, as presented in Table 3.

NWs		NNWs	
<i>Often</i>	0.68	<i>often</i>	1.53
<i>About</i>	0.25	<i>mostly</i>	0.50
<i>Usually</i>	0.22	<i>almost</i>	0.28
<i>Mainly</i>	0.20	<i>relatively</i>	0.17
<i>relatively</i>	0.20	<i>in most cases</i>	0.15

Table 3. The most frequent adverbials used as hedges

This result is hardly surprising, as approximators are highly common in the Results sections of the analysed articles. As examples (13) – (15) show, they are especially useful for writers to present their quantitative findings with less precision. Interestingly, the adverbs typically associated with epistemic modality, exemplified by *probably* in (16), do not feature among the most frequent items in either sub-corpus; yet they are more commonly employed by NWs.

- (13) *almost* 80% of the respondents consider that ... (NNWs_14)
- (14) Such reviews are *often* published using the accounts created only to make fake reviews. (NNWs_7)

- (15) The findings *mainly* support the application of the SET framework in this context ... (NWs_18)
- (16) This is *probably* the result of a number of factors. (NWs_4)

4.5. Adjectives

Compared to the adverbial hedges, the adjectives used as hedges are far less common in our corpus (1.83, 1.03 ptw) and represent a much smaller category. Our analysis revealed 20 such items, again with the greater variety found in the NWs articles (18 vs. 11 items). As Table 4 shows, *potential* and *possible* are the most preferred adjectives across the corpus.

NWs		NNWs	
<i>likely</i>	0.73	<i>possible</i>	0.35
<i>potential</i>	0.28	<i>potential</i>	0.32
<i>possible</i>	0.22	<i>likely</i>	0.10
<i>proposed</i>	0.11	<i>expected</i>	0.05
<i>unlikely</i>	0.09	<i>typical</i>	0.05

Table 4. The most frequent adjectives used as hedges

It appears that NWs use adjectives as explicit epistemic modifiers more frequently, as is the case of the adjective *likely* in example (16). In the articles from Serbian journals, adjectives in attributive position prevail. We can see from example (18) that adjectives in this use are not strictly epistemic, still, as Hyland (1998a: 131–132) maintains, they also qualify the writer's position.

- (17) It is *likely* that location may be a factor in differentiating residents' attitudes ... (NWs_7)
- (18) Local residents are aware of the *possible* positive impacts of cycling tourism development; (NNWs_15)

4.6. Nouns

Nouns are the least prominent category of hedges. Our analysis revealed 19 nominal hedges, which are morphologically and semantically strongly related to the lexical verbs and adjectives discussed above. They are another means for presenting information tentatively, as in the examples below.

- (19) It is our *assumption* that more local residents would provide cycling friendly services ... (NNWs_20)
- (20) The *claim* is that business according to HACCP is not changed (NNWs_11)

Nominal hedges are the only hedging category which Serbian writers use more frequently than NWs (0.73 vs. 1.03 ptw). This, however, does not entail a greater variety, since NNWs rely on a much more limited set of items (16 vs. 9 items). Interestingly, of the four most frequent nouns used as hedges by NWs,

shown in Table 5, only *probability* is used by NNWs, while the remaining three do not occur in the NNWs texts.

NWs		NNWs	
<i>prediction</i>	0.11	<i>assumption</i>	0.27
<i>proposition</i>	0.07	<i>possibility</i>	0.20
<i>suggestion</i>	0.07	<i>probability</i>	0.17
<i>probability</i>	0.07	<i>assertion</i>	0.10

Table 5. The most frequent nouns used as hedges

5. Conclusion

We have set out to investigate lexical hedges in the post-method sections of RAs written in English by Anglophone and Serbian authors. The analysis has revealed substantial differences in the amount of hedging used, the tendency to rely on particular hedging categories and the variety of lexical items employed. As already observed (Chen, Zhang 2017: 24), some of the underlying causes for these differences might be of a different nature, with different cultural norms, rhetorical traditions, and levels of pragmatic competence probably being the principal ones.

The results have shown that native writers prefer lexical verbs and modals for hedging, followed, in decreasing order, by adverbials, adjectives, and nouns. On the other hand, non-native writers employ modals first of all, then adverbials, lexical verbs, nouns, and adjectives; they also use more nouns for hedging purposes than NWs, but the range of items is more limited. NWs use a wider range of hedging devices and a larger number of items in each category (except for the nouns), which indicates that they tend to be less categorical and direct in their claims. This corresponds to previous research findings by numerous other authors discussed here in the literature review and theoretical background sections. This sheds light on the cross-cultural challenges NNWs face when presenting their research in English to an international audience. In view of this, the results can be used as an input for teaching specific rhetorical techniques in academic writing at tertiary level, which would help NNWs gain confidence and native like proficiency when presenting their research work internationally.

Our findings may also contribute to the investigation of academic writing in the tourism-related fields, which has not been done extensively so far. Further comparative research could be done on larger corpora, covering specific subfields, and belonging to other languages as well.

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Appendix

Corpus details

NWs		NNWs	
Journal	No. of Ras	Journal	No. of RAs
<i>International Journal of Tourism Research</i>	1	<i>Serbian Journal of Management</i>	2
<i>Current Issues in Tourism</i>	1	<i>Ekonomika preduzeća</i>	2
<i>International Journal of Contemporary Hospitality Management</i>	2	<i>Teme</i>	3
<i>Tourism Management</i>	2	<i>Economics of Agriculture</i>	3
<i>International Journal of Hospitality Management</i>	3	<i>Strategic Management</i>	1
<i>Journal of Sustainable Tourism</i>	1	<i>The European Journal of Applied Economics</i>	2
<i>Journal of Hospitality and Tourism Research</i>	2	<i>Megatrend Review</i>	1
<i>Tourism Management Perspectives</i>	2	<i>Hotel and Tourism Management</i>	2
<i>Journal of Hospitality and Tourism Management</i>	2	<i>The Annals of the Faculty of Economics in Subotica</i>	2
<i>Cornell Hospitality Quarterly</i>	2	<i>Economic Themes</i>	1
<i>Tourism and Hospitality Research</i>	2	<i>Economic Horizons</i>	1
<i>Tourism Economics</i>	1	<i>Industry</i>	2
<i>Tourism Review International</i>	1		