

# HUMILITY AND MODESTY IN LEADERSHIP – A BIBLIOMETRIC PERSPECTIVE

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## Abstract

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Objective: 1) To provide a bibliometric picture of humility as presented in current academic management journals and 2) to identify new research trends. Method: A survey of specialized publications, citations, H-index, etc. Findings: Humility research in management, in terms of number of publications and citations, has a comparable position to other areas. However, when compared to the entire volume of management research, humility represents only 0.025%. A similar research in psychology shows a dramatic growth, with the amount of publications and citations having doubled since 2010, and we consider this a trend.

Keywords: humility, modesty, leadership, citation reports

## INTRODUCTION

This article has a twofold objective:

- 1) To provide an up-to-date bibliometric picture of the subject of humility as presented in current academic management journals.
- 2) To identify future trends in humility research, by means of comparison and analogy with other research areas, esp. psychology research applied in the field of management.

The target group of the article includes scholars interested in current trends in academic research. The article might be useful for all scholars at the beginning of their careers from the methodological point of view, as it shows the way to map research activity, its structure and tendencies in academic research in general.

The article has the following structure:

- 1) We provide a tour around definitions and concepts of humility in current management & psychology research.
- 2) We introduce methodology and explain our bibliometric research.
- 3) We carry out bibliometric investigation on the structure and tendencies of humility research across all the research fields in the field

of management and psychology. Subsequently we will try to identify trends to be expected in humility research.

A nice overview of the definitional issues is proposed by Molyneaux (2003), using the methodology of literature science. He starts with the analysis of the New Testament, with the famous saying “*Blessed are the Meek*”, where for “meek” stands the Greek word “πραῦτης”; phonetically read as *pravtis*. According to the New Testament literature review, “meek” *does not require withdrawal, unthinking compliance or power foregone. Rather, it instructs on the active exercise of the powers of ownership and leadership.*

Plato describes the citizens of Atlantis as people of moral integrity, using the word “πραῦτης” or “meekness” or eventually “gentleness”: *For the intents of their hearts were true and in all ways noble, and they showed ‘πραῦτης’ joined with discernment in dealing with the changes and chances of life and in their dealings with one another.* The alliance of “meekness” and “discernment” is critical, as Molyneaux emphasizes.

An interesting survey of definitions based on the review of authoritative business books is offered by Dusey and Rodriguez-Lopez (2004). Robert Solomon in his book *A Better Way to Think about Business* provides a useful definition of humility

as: *a realistic assessment of one's own contribution and the recognition of the contribution of others, along with luck and good fortune that made one's own success possible.* Humility enables leaders to distinguish between:

- a) self-esteem,
- b) self-confidence,
- c) self-assessment.

Humility is the mid-point between negative extremes of arrogance and lack of self-esteem. In our view, this definition, based on one's own capacity to discern among esteem, confidence and assessment is most compatible with our view of the humility concept.

We start with the Hexaco/Honesty-Humility model as it seems as most perspective in current research. The model stems from the lexical research in several languages and identifies six important personality traits: Humility-Honesty, Emotionality, Extraversion, Agreeability, Conscientiousness and Openness to Experience. The Hexaco model is derived from the widely known model "Big Five", based on five personality traits. Big Five was later modified to the form of Five Factor Model (Ashton and Lee, 2008). Out of 85 records on humility in psychology, almost 25% deal with the Hexaco model. Among the four most quoted articles in humility research in psychology, two articles use the Hexaco model.

Johnson *et al.* (2011) found probably the most encompassing and both intuitively and empirically best acceptable definition in The Oxford Handbook on Positive Psychology, suggesting the following key elements of humility:

- a) ability to acknowledge one's own personal limits,
- b) openness to advice from others,
- c) keeping accomplishments in perspective,
- d) low self-focus,
- e) appreciation of others.

This definition appears to be highly appropriate for further practical application and empirical research.

## MATERIALS AND METHODS

In order to fulfill objectives defined in the Introduction, we have executed bibliometric research on humility research as presented in academic journals in the following areas:

- 1) across all the research fields,
- 2) in the field of management,
- 3) in the field of psychology.

We used the most frequently used databases in the field of scientific research in management, especially the Web of Sciences, that offer useful analytical bibliometric tools based on citation reports as well as Ebsco, Science Direct, etc.

We will analyze the following bibliometric parameters:

- publications and citations (excluding self-citations), in total and per year averages,

- H-index, and two new variables that have been devised for this article,
- dynamics in time, visible by means of graphic charts.

Web of Knowledge (2014) defines the H-index in terms of intensity of citations. When we sort articles by the number of citations, the number of items above this line, which is "h" have at least "h" citations. For example, an H-index of 20 means there are 20 items that have 20 citations or more. This metric is useful because it discounts the disproportionate weight of highly cited papers or papers that have not yet been cited.

We propose two additional measures/ratios that have been devised for the purpose of this article:

- 1) "Ratio of average amount of citations per year in the past 3 years to the total amount of publications". This ratio tells as about the recent scientific activity in the given area. It shows how much attention has the scientific community paid to the subject in the past three years, relative to the entire volume of publications. This measure brings extremely interesting results when compared to the other research areas.
- 2) "Percentage of publications above the H-index". We calculate it as a ratio of H-index to the number of publications. It says what the percentage of publications having the citation level equal or higher than H-index is. It could be characterized as turnover of the stock of articles, or "freshness" or "topicality". Telling us what portion of scientific publications (respecting the size of total volume) is in the interest of the scientific community and what part remains unnoticed, "on the shelves".

Bibliometric methodology is shown in Tab. I. Search settings are clearly predetermined by the objectives. We have used Web of Sciences and its analytical tools. Subsequently we used several databases to get the journals in full texts. According to Trucker (2006), EBSCO provides good access to a wide spectrum of business and management journals. A good access to psychology research, with straightforward implications for business is offered by Science Direct. We occasionally used Google Scholar, Springer and ProQuest.

We constructed our bibliometric search on the following assumption. If we want the article to be really focused on "humility", we insist this expression must be included in the title, otherwise "humility" might not be in the very center of research interest! Furthermore, "humility" is lexically related to several synonyms that we included to the search (meek, meekness, humble, humbleness, humility, modesty). For abbreviation, we will call this search settings as "HUMILITY RESEARCH IN GENERAL".

Some other adjustments have been made to the search settings: The word "prostration" has not been included as it invokes technical issues or, as the case may be, a kind of a ritual movement. We also did not include the word "modest", as it is related

## I: Search operators and options used in bibliometric research

## Structure of bibliometric search “humility in management”

**Database:** Web of Science**Analytical tool:** Citation report, Analysis of search results**General search operators “Humility research in general”****Title** = meek OR meekness OR humble OR humbleness OR humility OR modesty**Research in the specific area of management:****Subject/key word** = business OR management OR leadership**Research area:** Business Economics.**Type of documentation to be searched:**

(1) Article, (2) Proceedings papers from conferences

**Form of analysis:** amount of publications, amount of citations (without self-citations), h-index, average citation per item.**Excluded from the search:**

NOT TS = Biology OR Medicine

NOT TI = James OR Joe OR Robert OR George OR Meeker OR Oracle OR Software

**Time span** = All years, since 1995, **Selection of databases:** all databases

Source: authors

to the quality or eventual extent of a research (e. g. “modest research”, “modest proposal”), or eventually “modest” relates to technical/medical aspects. We have also excluded the words “Biology”, “Medicine” as subjects/key words, to avoid the interference with technical sciences. We also excluded the words “Joe”, “James”, “Robert”, “George” from the title, as these might interfere with the persons whose surname is Meek or Meeker. For obvious reasons we excluded words “Oracle” and “Software” from the title.

We have inspected manually all the search results to ensure that the above mentioned research settings do not include any coincidently similar but inappropriate results.

## RESULTS

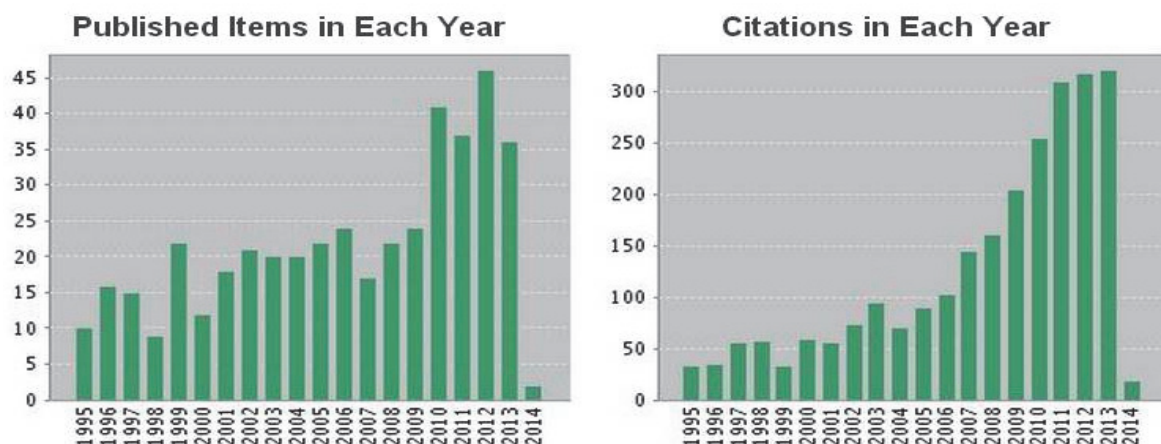
The objective of this chapter is to bring a bibliometric picture on the structure and trends of humility research. First we analyze humility

research across all the research areas, then we focus on the field of management. Consequently, we will analyze the field of psychology and by means of bibliometric characteristics we will identify future trends in humility research.

## Bibliometric Analysis of Humility Research in All Research Areas

In the past ten years we can observe a growing and steady interest in humility research among scholars (Fig. 1). Since 1995 the number of publications and citations has been growing constantly. Since 2006 the number of citations per year has tripled, and over the last 3 years the number of citations exceeds annually 300.

Tab. II brings the analysis of research areas in humility. Web of Science offers efficient tools to analyze publications by the domain of research. We can see that research in humility in the field of business represents 5.77% of the total research of



1: ALL RESEARCH AREAS, publications and citations in humility research, database Web of Science, 624 articles or conference papers, time span since 1985

Source: Web of Science, Analytical Tools – Citation Reports, January 2014

## II: Research in humility in all research areas, database Web of Science, 624 records, first ten research areas, time span all years, since 1995

Research Area	No. of articles	Percentage
1 Psychology	85	13.62%
2 Literature	80	12.82%
3 Religion	70	11.22%
4 Philosophy	67	10.73%
<b>5 Business &amp; Economics</b>	<b>36</b>	<b>5.77%</b>
6 Government Law	36	5.77%
7 Arts Humanities Other topics	36	5.77%
8 History	30	4.81%
9 Social Sciences Other topics	28	4.49%

Source: Web of Science, Analytical Tools, January 2014

humility, and ranks itself on the 5<sup>th</sup> position in terms of frequency. On the other hand, as of 2 January 2014, Web of Science offers another 144 thousand articles/conference papers in the field of business, management or leadership, and only 36 of them are dedicated to humility, which represents less than 0.025%.

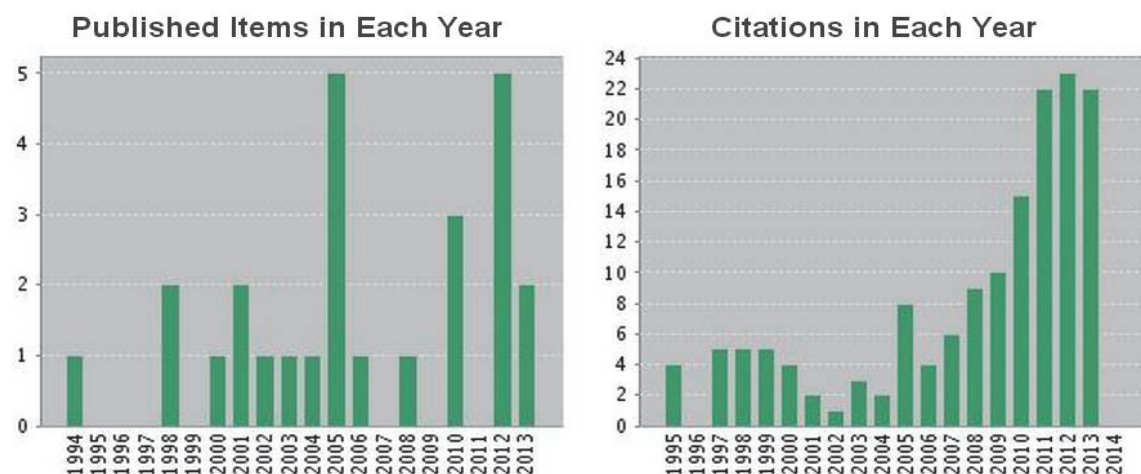
In all research areas, the most quoted article, written by Tervalon and Murray-Garcia (1998), with 213 citations, focuses on education in medicine and calls for the imperative to teach the “cultural humility” at the faculties of medicine in the United States. Cultural humility is a more suitable objective than multicultural medical education. The second most quoted article, in all research areas (163 citations), calls for the urgency of governments to use the “technology of humility”; when it comes to the assessment of unknown and uncertain technologies and phenomena such as climate change or new scientific discoveries, written by Jasanoff (2003). The third most quoted article, with 137 citations, written by Tice *et al.* (1995), is from the field of social psychology, bringing the finding that people tend to be more modest when they present themselves to their friends and more self-

enhancing when they are confronted with strangers. All the other articles have fewer than a hundred quotations.

### Bibliometric Analysis of Humility Research in Management

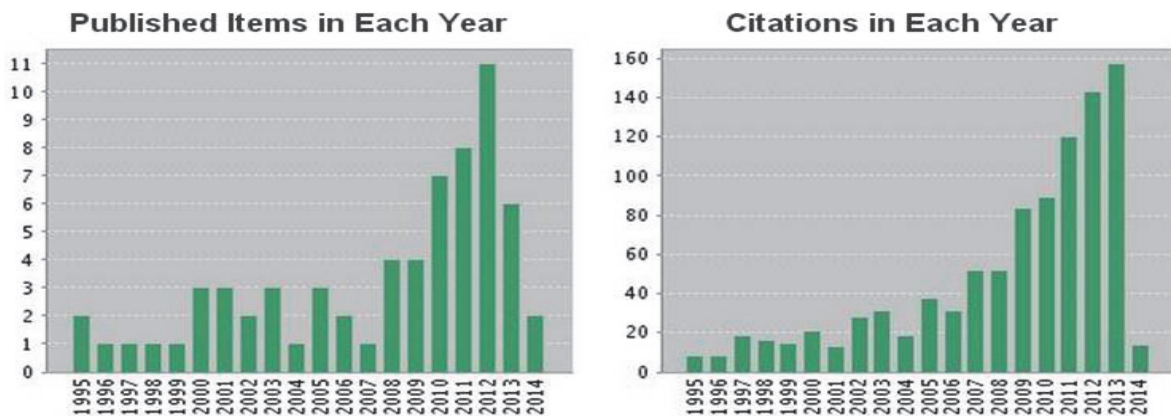
Based on Fig. 2 below we see that frequency of publications in humility research in management is rather irregular. On the other hand, since 2006 the number of citations has been growing constantly, which indicates an increasing interest among scholars.

The most frequently quoted article in humility research in management, written by Yu – Murphy (1995), ranking 19<sup>th</sup>, with 31 citations, is centered towards applied psychology, and observes that Chinese workers rate themselves more modestly than their western counterparts. The second most quoted record, written by Morris *et al.* (2005), ranking 23<sup>rd</sup>, with 28 citations, is a conference paper of the Academy of Management, bringing the conceptualizations of humility in leadership. The third most cited article, written by Collins (2005), ranking 29<sup>th</sup>, with 22 citations, talks about the “Level 5” leadership, suggesting that effective



2: BUSINESS & ECONOMICS, publications and citations in humility research, Web of Science, 32 articles or conference papers, time span since 1985, Title = meek OR meekness OR humble OR humbleness OR humility OR modesty  
Source: Web of Science, Analytical – Citation Reports, January 2014





3: Humility research in PSYCHOLOGY, Web of Science, 79 articles or conference papers, time span since 1985, Title = meek OR meekness OR humble OR humbleness OR humility OR modesty  
Source: Web of Science, Analytical – Citation Reports, January 2014

and efficient leadership must be a combination of both determination and humility.

An article by Dusya and Rodriguez-Lopez (2004), ranks 39<sup>th</sup> and focuses entirely on business strategy, declares humility a competitive advantage, giving the companies a realistic perspective of themselves and the environment. The authors claim humility to be a critical strength for leaders and businesses, working as prevention against the “success trap”.

#### Psychology Research in Humility as a Trend-setter

Humility research in psychology shows a steady growth of interest among scholars (Fig. 3). Since 2005, the annual amount of citations has increased 4 times, from 40 to 160, and since 2010 the amount of citations doubled and in the last 3 years, the annual amount of citations has exceeded 120. We suppose this is due to the fact that the psychologists have discovered that humility measurement provides very good explanations of human behavior and has a strong explanatory power in social relations.

Definitional concepts of humility in the most frequently quoted articles are as follows:

- 1) HEXACO model and Honesty-Humility factor.
- 2) Concept of modesty implied in self-presentation, used in social psychology and psychology of organization.
- 3) Concept of forgiveness and humility used in the field of family therapy.
- 4) Ad hoc concepts of humility and modesty in social and cross-cultural psychology.

We assume that psychology research has a strong impact on management research for the following reasons:

- 1) Psychology measurement tools and concepts are extremely suitable to measure and evaluate the widest spectrum of organizational performance, managerial and work-place related aspects.
- 2) Psychometry is designed to provide standardized and statistically reliable results, which is extremely convenient for business practice.

- 3) It is a profitable area. Businesses are able and eager to pay for the research that might pay off.

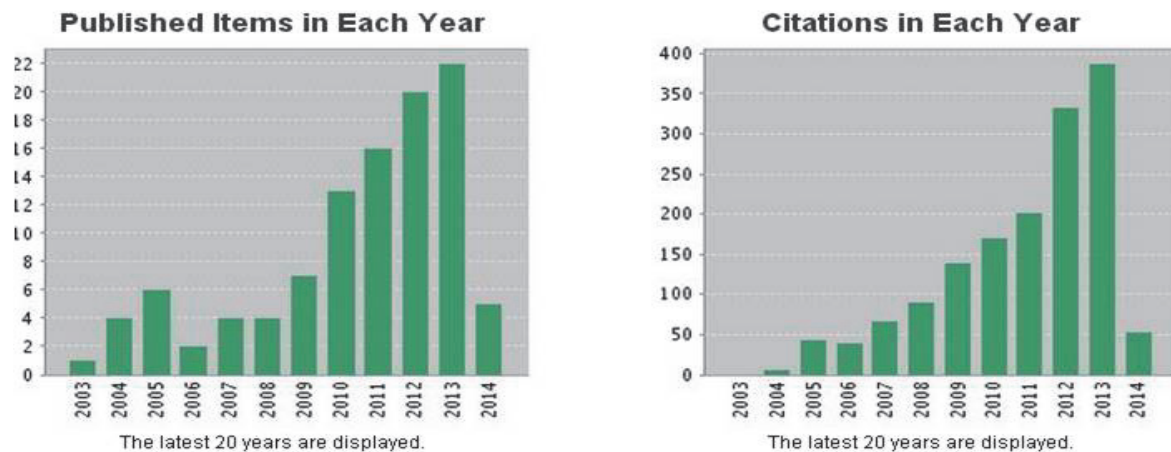
The growing interest in humility among psychology scholars is also confirmed by the following figure showing research using Honesty and Humility factor (Fig. 4). We see the annual number of citations growing steadily and reaching nearly 400 in 2013.

We have not restricted the bibliometric research of Hexaco to business context as the model is quite new, first appeared in 2004. Web of Sciences offers the following analysis of research sub-categories: out of 104 articles on Honesty-Humility factor, 65% concern social psychology, 13% applied psychology, 10% explicitly business & management. Hence, it is easy to imagine a wider and massive application in the research of business contexts; especially when we consider the massive application of Big Five (a predecessor of Hexaco) in business research.

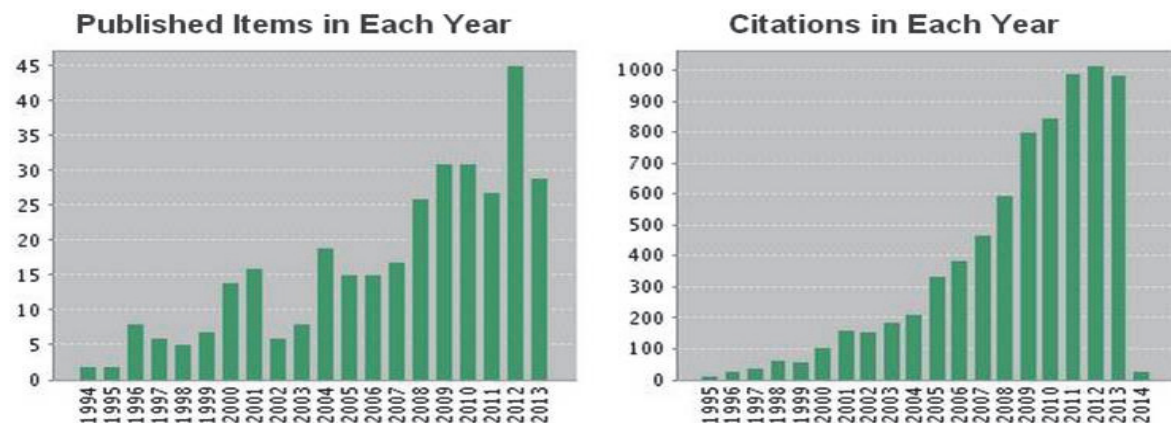
The next figure (Fig. 5) shows why we think the Hexaco model and hence the Humility-Honesty factor might soon gain a high importance in management and organizational research. Articles using Big Five model (predecessor of Hexaco), specifically applied in the area of management, achieved more than 7,200 citations in total, and cca. 1,000 citations annually in the last three years.

The Hexaco test appeared in 2004 as an improvement of the Big Five test. The major change consists in the introduction of Honesty-Humility facet (H-factor). According to the authors, Hexaco covers much better the structure of the personality and increases overall explanatory power of human behavior. (Ashton and Lee, 2008). Hence we suppose, the research using Hexaco might have a similar success path as the research using Big Five. Please refer to Tab. III.

Tab. III below summarizes parameters of our bibliometric search. We see that the position of research in management, as regards average citations per item, is comparable to research in all the areas. However, it lags behind psychology research, in terms of vivacity and turnover of research ideas.



4: Honesty-Humility (part of Hexaco model), not restricted to management research. Web of Science, 103 articles or conference papers, time span since 1985, Search specification: Topic = ("Honesty-Humility") OR Title = ("Honesty-Humility"). Web of Science, Analytical Tools – Citation Reports, January 2014



5: Big Five model (predecessor of Hexaco) applied in management research, Web of Science, 331 articles or conference papers, time span since 1985, Search specification: ((TI = ("Big Five") OR TS = ("Big Five")) AND TS = (business OR management OR leadership OR organization))

III: Humility research comparison, Web of Science, Type of documents = articles & proceedings, time span since 1985. "Humility in general" = Title (meek OR meekness OR humble OR humbleness OR humility OR modesty)

Bibliometric measures	All research areas	Management, humility in general	Psychology, humility in general	Psychology "Honesty-Humility"	Psychology "Big Five" research, (restricted to management)
Time span	20 years	20 years	20 years	10 years, since the invention of Hexaco	20 years
<b>Publications – in total</b>	<b>624</b>	<b>32</b>	<b>79</b>	<b>101</b>	<b>331</b>
Citations – in total (without self-citations)	2,351	151	889	864	7,207
<b>Citations – per item</b>	<b>4.54</b>	<b>5.06</b>	<b>12.62</b>	<b>15.51</b>	<b>22.64</b>
Average total citations in last 3 years	cca 310	cca 23	cca 140	cca 300	cca 1,,000
<b>Ratio: average total citation in last 3 years to total of publications</b>	<b>cca 0.5</b>	<b>cca 0.7</b>	<b>cca 1.8</b>	<b>cca 3.01</b>	<b>cca 3.31</b>
H-index	25	7	17	17	46
<b>Ratio: percentage of publications to H-index</b>	<b>4%</b>	<b>21.80%</b>	<b>21.5%</b>	<b>16.5%</b>	<b>14%</b>

Source: Web of Science, Analytical – Citation Reports, January 2014

However, there is a need to highlight that humility research in management achieves the highest score in the “Ratio: percentage of publications to H-index” (21.8%), which indicates that the publications in humility in management attracts significant interests of scholars relative to the current volume of publications. In other words, only small parts of research articles in humility research remains unnoticed. We add that the small H-index (7 for management) is, in a way, arithmetically inevitable for a small and specific research niche.

The final paragraph of the article will bring bibliometric evidence that humility research in psychology is a potential trend-setter for management. Please refer to Tab. III. 1) “Citations per item” is highest in all three psychology areas. Big Five model in management achieves the highest level of citations per item. 2) “Ratio: average total citations in last 3 years to total of publications”, is extremely high for articles using “Big Five model in management” and “Humility-Honesty factor”. This might predict a massive growth of humility research in organizational context/management. 3) Very high “Ratio: percentage of publications to H-index”, in general humility research, for both management and psychology, clearly indicates strong interest within the community of researchers.

## DISCUSSION

We have found an interesting pattern in humility research in applied psychology. In our view,

psychology research is a very valuable source for understanding and improving processes in organizations; it provides statistically significant and well structured results; the kind of language that is welcomed by the management scholars as well as practitioners. Therefore we draw the conclusion also from psychology research.

Both management and applied psychology research in humility show very high turnover of research ideas (as measured by the “Ratio: percentage of publications to H-index”). The numbers of publications and citations have shown an impressive growth in the past three years. Hence we conclude that humility research applied in management is ready for a success path.

Interest in humility research in management has a similar position when compared to other research areas. It ranks the 5<sup>th</sup> in terms of publications if compared to other research fields. However, research in humility in management represents only 0.025% of total research volume in management.

As a limitation of this study can be found the fact the hereby outlined conclusions and trends are based on the content and structure of results of the database Web of Science, Ebsco Discovery Service, and some other databases. On the other hand, this is considered a common way to enact a bibliometric investigation (Trucker, 2005) and research on academic research trends, especially in business (Trucker, 2006).

## CONCLUSION

The objective of this article was to provide a bibliometric picture of the structure and tendencies of humility research in management. This research is up-to-date as of 4 January 2014 and the bibliometric survey includes most frequently used databases of academic journals in the field of management and applied psychology, esp. Web of Science, Ebsco, Science Direct, etc. Web of Science offers useful analytical bibliometric tools based on citation reports. Findings can be concluded as follows.

Researchers in psychology have recently demonstrated a very strong interest in the phenomenon of humility, shown by a dramatic growth of citations concerning Humility-Honesty factor. An impressive interest of scholars (1,000 citations annually in the last three years) shows research using Big Five Model applied in management. It is probable that the new Hexaco model (that includes already Honesty-Humility measure) will replace the Big Five Model in the near future.

We suppose that the researchers in management sciences and psychology applied in management will direct their interest towards this phenomenon in the near future. Moreover, we take the liberty of expressing our hope that the outcomes of this research will soon show their impact on the behavior and decisions of management practitioners in all walks of business.

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