A Corpus-Based Analysis of Collocations in Chinese and American Letters to Shareholders

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Abstract: The letter to shareholder is a particularly important promotional genre and is published annually to report company financial performance, and also help manage the relationship between a company and its present as well as potential investors. This corpus-based study of keywords and their collocations investigates the letters to shareholders from 10 Chinese and 10 American Fortune 500 companies. The results show that: 1) the most concerned business themes are manifested in the two corpora, which involve the growth of business. What's more, Chinese companies concerns more about business itself and the future development of business, while American companies also stress on the theme of customer; 2) the collocation analysis of these main concerns reveal that Chinese enterprises repeatedly mentioned the innovation and uniqueness of their business models, while American companies value whether their business models are right and diversified. In addition, Chinese companies seem to focus more about the status of growth than their American counterparts; 3) both Chinese and American enterprises favor the long-term development of their business. There are differences in featuring the status of growth: Chinese companies tend to enhance confidence and sense of dependence by repeatedly mentioning the status of growth both in home and around the globe, while American companies tend to use precise numbers to impress their investors and enhance their own reliable corporate images.

Keywords: Collocation, Letters to shareholders, Corpus-based.

Introduction

Collocation is attracting more and more attention in the field of linguistics since the 1980s. As Firth states, “you shall know a lot about a word from the company it keeps” [1], Halliday [2] mentioned that the meaning of a word is reflected by the relation it has with other words.

For example, “it is part of the meaning of ‘past’ that it contrasts with ‘present’, and it is part of the meaning of strong that it collocates with tea” [2]. Letter to shareholders is an important genre of interest in projecting the corporate image and ideology to both present and potential investors of an enterprise. Communicating with various audiences for varied goals makes this genre rich in discourse and valuable for investigating. This study differs in that it provides a comparative analysis of keywords and collocations in two nations’ letters to shareholders. It aims to explore the similarities and distinct characteristics in how Chinese and American companies construct their corporate images.

Literature Review

Previous Studies on Keywords and Collocations
In the early 1950s, Firth first introduces the concept of collocation. However, Firth doesn’t clearly give a definition of collocation, about which still remains some debates to date. A common focus among different schools studying collocation is the co-occurrence of words. Collocation focuses on the horizontal relationship between words.

Sinclair [3] distinguishes two key elements in the study of collocation, which are the notions of upward and downward collocation, and semantic prosody. The term of semantic prosody is first come up with by Louw [4]. It embodies several functions in language. The violation of semantic prosody can help a speaker or writer to achieve certain communicative goals. Researches of business English in this area have been mainly focused on two aspects: the definition and usage of collocation [5, 6] and the learning and teaching of collocation [7, 8].

For instance, Walker [7] conducts two case studies to show how collocation can help the teaching of business English. The author investigates the collocation of key lexis, reveals the different senses of them, and thus helps to show particular semantic prosody. Teachers are able to use certain corpus as a useful reference tool and conduct collocation analysis to check many intuitions before passing them on to their learners.

Sznajder [8] conducts a study of metaphors in English textbooks and uses collocational method to support the result of the aforementioned metaphor study. The result suggests that the selections of metaphors in English textbooks are only partly overlapped with those in general English corpora. It indicates that a thorough examination of business discourse should be needed to produce optimum teaching materials.

**Previous Studies on Letters to Shareholders**

The letter to shareholders is an important part of the annual report of an enterprise, which is written by the CEO/President/Chairman of the enterprise to its present and potential investors, which are important sources of data on top management leadership [9, 11]. As the most widely read part of corporate annual reports [12], letters to shareholders can help ease the asymmetry of information between a corporate and its shareholders, and manage the relationship between them.

The researches in this field are mainly on the communicative strategies of spreading good and bad news [13], and the readability of the Chairman’s narratives [14], etc. For instance, Poole [13] explores the letters to shareholders from two commercial banks in the year of the economic recession from December 2007 to June 2009, and reveals that when in low performance, the companies create vision massages, forward strategy to ensure future success, and evade responsibility for past failure by blurring authorial presence, while in high performance, the companies tend to accept praise, and emphasize “good news”.

Research methods are mainly appraisal analysis [15], metadiscourse studies [16], and genre analysis [17]. For example, Hyland [9] compares the distribution of metadiscoursal resources in 137 letters to shareholders of companies in Hong Kong, and discusses the logos, ethos, and pathos in them, which attracts more attention to the rhetorical resources in this persuasive genre.

Hu & Li [18] explores the metadiscoursal devices and their functions in letters to shareholders from both Chinese and American IT companies. The result shows that differences in personal, corporate, and national cultures may contribute to the differences between metadiscoursal resources of Chinese and American letters to shareholders. Other methods include case study, discourse analysis, etc. To take as an example, [19] go through several cases of the letters of the Chief Executive Officers of Enron, Starbucks, and General Motors to
demonstrate the potential of destructive narcissism and found strong linguistic traces of them. On the level of cognition, researchers focus on the metaphor distribution in letters to shareholders, e.g., Bujaki & Mc Connomy [20] analyze the use of metaphor in the 1997-2006 letters to shareholders of Nortel Networks Corporation (Nortel) and evaluate the prevalence of metaphor and changes in the use of metaphor as turnover in corporate leadership took place. Hu & Tan [21] explores the metaphor translation in Chinese letters to shareholders and finds out the metaphor expressions with Chinese characteristics. Poole [22] investigates the semantic classes of evaluative adjectives in the letters and their function within this ESP genre of interest, and the result shows that letters to shareholders seem to present a positive view of a blueprint of success through positively-weighted and temporally-oriented evaluative entities and adjectives.

Poole has verified that keyword analysis and collocation analysis can be used to reveal the underlying and often subtle messages with important institutional messages. However, despite the importance of letters to shareholders, this genre of discourse has not been attached enough attention to. The limitations of previous studies are mainly that: the insufficiency of comparative analysis between Chinese and American companies from different industries; the lack of collocation analysis of letters to shareholders.

In order to fill these gaps, the author intends to conduct a comparative analysis of collocations in letters to shareholders between Chinese and American enterprises.

Method

Research Questions

The present study focuses on three research questions: 1) what are the main concerns of Chinese and American letters to shareholders respectively? 2) How are the collocations of those main concerns distributed? 3) What do those collocations reveal about the corporate images of Chinese and American companies? Are there any similarities and differences in developing corporate images between Chinese and American companies?

Data

The corpora are comprised of letters to shareholders from 2012 to 2016 of 10 Chinese and 10 American companies. These companies are all in the list of Fortune 500, and contain different industries, e.g., e-commerce, banking, electronics, and retailing industries, etc.; thus, their letters to shareholders are considered to be representative. Letters to shareholders of these 20 companies are collected from their official websites and then transcribed into txt format for further analysis. Basic information of the 50 letters to shareholders of Chinese companies (CLS) and 50 letters to shareholders of American companies (USLS) are listed below.

Table 1: Basic Corpus Information

<table>
<thead>
<tr>
<th>Corpus</th>
<th>CLS</th>
<th>USLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tokens</td>
<td>68,047</td>
<td>126,074</td>
</tr>
<tr>
<td>Types</td>
<td>4886</td>
<td>122,541</td>
</tr>
<tr>
<td>Standardized TTR</td>
<td>37.06</td>
<td>42.33</td>
</tr>
</tbody>
</table>

Tools

Word Smith Tools consist of three basic sub-tools that are suitable for corpora analysis, which are Concord, Keywords, and Wordlist. Among them, Keywords helps users to find salient words in a text or set of texts; Wordlist is able to list the words in users’ texts in alphabetical and frequency order; Concord is for finding all the instances of a word or phrase in users’ texts. This study involves the use of the three of them.
Procedures

As mentioned by Baker [25], “[a]n examination of the keywords that occur when two corpora are compared together should reveal the most significant lexical differences between them, in terms of aboutness and style.”

To answer the aforementioned questions, this study contains three steps: 1) use Wordlist to extract two word lists of CLS and USLS, take AME06 as reference corpus, and generates keyword lists for both the two corpora; 2) choose strong collocational words from the keyword lists using MI score, and analyze their collocational characteristics; 3) discuss the corporate images revealed by the keyword lists as well as the collocational features, and compare those between Chinese and American enterprises.

Results and Analysis

Keywords in CLS and USLS

Using AME06 as reference corpus, the top 10 keywords of each corpus are shown in Fig 1 and Fig 2, sorting by their keyness score.

As can be seen from Fig 1 and Fig 2, “our” and “we” are shared function words by the two corpora. The keyness of “our” and “we” in CLS are 2,579.10 and 1,366.38, and those in USLS are 9,309.84 and 6,693.28. This indicates that in CLS and USLS, the frequency of “our” and “we” are far higher than those in AME06, which can be explained by the genre
characteristics of letters to shareholders. The usages of “our” and “we” can help the companies to draw the distance between them and their audience, and enhance a sense of participation. There are two shared content words by CLS and USLS, which are “business” and “growth”, which indicates the most concerned themes of general business, whose collocations will be explored in detail in the following sections. Apart from these four shared keywords, others in the top 10 keyword lists between CLS and USLS are sharply different. CLS refers more to business itself, involving keywords, e.g. “market” and “development”, and it stresses future development, manifested by the keyword “will”.

However, USLS lays more focus on customers, reflected by the high keyness of the words “customer” and its plural form “customers”. Kenny [23] mentions that mutual information will give high score to low frequency words, which explains the high keyness of “GE” in USLS.

Collocations in CLS and USLS

As mentioned in section 4.1, the shared high keyness words of CLS and USLS are “business” and “growth”, thus to form a better understanding of the shared keywords, a collocational analysis should be conducted. However, when two words occur near each other, it is not safe to say that they are strong collocates. As mentioned by Baker [24], it is “[not] certain that frequency is the same as saliency”. Mutual Information (MI) can help test “when a relationship between two words is fairly exclusive and not just due to one or both words being common” [24]. The algorithm of MI is simply that:

[It] computes what the expected probability of these two words occurring near to each other would be, based on their relative frequencies and the overall size of the corpus. It then compares this expected figure to the observed figure—what has actually happened, and converts the difference between the two into a number which indicated the strength of the collocation—the higher the number, the stronger the collocation [24].

Due to the fact that MI tends to give lower frequency words higher score, this study integrates the factor of frequency to balance the deficiency of MI. Setting three as the threshold, and five as the span, the obtained strong collocates are sorted by their own frequency in the corpus.

Co-occurrences of “business” in CLS and USLS

Strong collocates of the keyword “business” in CLS and USLS are shown in Table 2. Shared collocate of the two corpora is “model”, with MI scores of 6.01 and 6.662.

Table 2: Strong collocates of “business” in CLS and USLS

<table>
<thead>
<tr>
<th>N</th>
<th>Word</th>
<th>Relation</th>
<th>Texts</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>model</td>
<td>6.01</td>
<td>16</td>
<td>29</td>
</tr>
<tr>
<td>5</td>
<td>core</td>
<td>5.94</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>33</td>
<td>new</td>
<td>3.242</td>
<td>12</td>
<td>19</td>
</tr>
<tr>
<td>19</td>
<td>insurance</td>
<td>4.536</td>
<td>5</td>
<td>18</td>
</tr>
<tr>
<td>13</td>
<td>PC</td>
<td>5.078</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>16</td>
<td>transformation</td>
<td>4.645</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>7</td>
<td>banking</td>
<td>5.905</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>23</td>
<td>opportunities</td>
<td>4.152</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>18</td>
<td>environment</td>
<td>4.618</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>expansion</td>
<td>5.683</td>
<td>4</td>
<td>7</td>
</tr>
</tbody>
</table>

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The co-occurrence of “business” and “model” refers to “business model” in both the two corpora. Nevertheless, words around “business model” in CLS and USLS tend to behave differently, as shown in Fig 3 and 4. It seems that Chinese enterprises repeatedly mentioned the innovation and uniqueness of their business models, while American companies value whether their business models are right and diversified.

Co-occurrences of “growth” in CLS and USLS

Strong collocates of the keyword “growth” in CLS and USLS are shown in Table 3. Shared strong collocates are “economic” and “drive”. CLS seems to focus more about the status of growth, with several descriptive words, such as “stable”, “steady”, “rapid”, and “strong”.

Table 3: Strong collocates of “growth” in CLS and USLS

<table>
<thead>
<tr>
<th></th>
<th>CLS</th>
<th>USLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Word</td>
<td>Relation</td>
</tr>
<tr>
<td>6</td>
<td>steady</td>
<td>6.794</td>
</tr>
<tr>
<td>13</td>
<td>stable</td>
<td>5.997</td>
</tr>
<tr>
<td>15</td>
<td>economic</td>
<td>5.068</td>
</tr>
<tr>
<td>11</td>
<td>drive</td>
<td>6.353</td>
</tr>
<tr>
<td>7</td>
<td>rapid</td>
<td>6.522</td>
</tr>
<tr>
<td>8</td>
<td>maintained</td>
<td>6.486</td>
</tr>
<tr>
<td>10</td>
<td>rate</td>
<td>6.439</td>
</tr>
<tr>
<td>14</td>
<td>sustainable</td>
<td>5.869</td>
</tr>
<tr>
<td>27</td>
<td>sales</td>
<td>3.426</td>
</tr>
<tr>
<td>19</td>
<td>strong</td>
<td>4.522</td>
</tr>
</tbody>
</table>

The co-occurrence of “growth” and “economic” in both the two corpora simply is “economic growth”. The other shared collocate “drive” in CLS refers to “drive future growth”, while in USLS, it refers to more specifically “drive earnings /industrial/ revenue/ future /new growth”.

These two shared collocates indicates what general business attach importance to, with other collocates aiming at the same purposes, e.g., “sales growth” in CLS, and “revenue growth”, “profitable growth”, and “growth markets” in USLS. Other strong collocates of “growth” in CLS contains “maintained” “steady growth”, “stable growth”, and “rapid growth”, “growth rate”, “sustainable growth”, and “strong growth”. However, to take a closer look at the strong collocates of “growth” in USLS, frequently occurring patterns contains “growth opportunities”, “organic growth”, “high growth markets/businesses”, “earnings growth”, and “EPS growth”.

Discussion

Long-term Orientation

One similarity found in this study is that both Chinese and American enterprises value the long-term growth of their business. As manifested in the examples bellow, example (1) and (2) are taken from CLS, and (3) from USLS. There are recurrent patterns of collocates of “growth” that display the long-term orientation of both Chinese and American enterprises, as shown in CLS, “sustainable”, and “consistent”, and in USLS, “long-term”, as well as “future growth in both the two corpora.

- In view of the increasing complexity in exploration and development activities, we strive to build a flexible and open R&D system to drive the Company’s sustainable growth through technological innovation. (China National Petroleum 2012)
- Even before we announced these deals, Lenovo had already determined to reorganize our company to ensure we could continue to drive consistent growth in our existing businesses and prepare ourselves to capture new opportunities. (Lenovo 2013)
- This framework was designed to give valuable insight into our progress in the key transformations we are undertaking in our businesses to drive long-term growth.
“Growth”, as one of the most important economic metaphors, has long been lexicalized and as an example of dead metaphor. Despite this, the collocational behaviour of growth “show [s] it to be highly active metaphorically and this in turn has significant discourse consequences” (White 2003:131). In the current study, the economic entities of both China and America are featured as living organisms, and firms as forces that “drive”, and help the organisms to grow.

Status of Growth

It can be seen from the collocational behaviors of “economic” and “growth” that when it comes to the description of economic growth, there are some slight differences between them.

- China has turned to adopt strategies to ensure stable growth after years of rapid economic growth. (Honghai 2016)

- Different speed of economic growth for domestic and overseas economies, inflation associated with economic growth, uncertain political issues as well as the possible implement of trade protection policy will bring both challenges and opportunities to the market. (Shougang 2016)

- Affected by the economic growth downturn, demand for commercial vehicles will continue to decrease. (Dongfeng Motor Group 2014)

The above three examples are all found in CLS, which manifest corporate image of Chinese companies that they pay close attention to the status of economic growth both in home and around the globe. Putting together, the image of making steady progress is shown, and together with other strong collocates with “growth”, e.g., the aforementioned “strong”, they can enhance the confidence and sense of dependence of their present as well as potential investors. By contrast, there are few descriptive adjectives as such in USLS. A scrutiny through the concordance lines of the strong collocates of “growth” helps to confirm that American companies stress the detail aspects of growth in their letters to shareholders.

The following examples are taken from USLS, which show that when structuring the concept of growth in their letters to shareholders, American companies prefer to let numbers do the talk. A back examination of the concordance lines of “growth” in CLS reveals only few companies mention the actual rates of growth around strong collocates of it.

This helps to confirm that compared to their Chinese counterparts, American enterprises tend to use precise numbers to impress their investors and enhance their own corporate images as reliable, talking through facts companies.

- As I look at the rich opportunities for growth in the connected world, and consider our strategic positioning, I wouldn’t want to trade places with any other CEO. (Best Buy 2014)

- Delivering close to double-digit operating EPS growth and a 12 percent operating ROE during the past three years is especially noteworthy given that the 10-year Treasury yield has averaged 2.2 percent since the summer of 2011 and our capital management actions have been conservative due to regulatory uncertainty.

- Our existing emerging-market businesses performed well in 2012 and contributed to overall operating earnings growth of 18% in Asia, 13% in Latin America, and 8% in Europe, the Middle East, and Africa (EMEA). (MetLife 2012)
Conclusion

Summary of Major Findings

Through the analysis of 40 Chinese and 40 American corporate letters to shareholders, the paper reaches several findings. Firstly, most concerned business themes are manifested in the two corpora, which involve the growth of business. What’s more, Chinese companies concerns more about business itself and the future development of business, while American companies also stress on the theme of customer.

Secondly, the collocations of these main concerns reveal that Chinese enterprises repeatedly mentioned the innovation and uniqueness of their business models, while American companies value whether their business models are right and diversified. In addition, Chinese companies seem to focus more about the status of growth than their American counterparts.

Finally, when structuring their own corporate images, both Chinese and American enterprises favor the long-term development of their business, aiming at a future-oriented image. Nevertheless, there are differences in featuring the status of growth: Chinese companies tend to enhance confidence and sense of dependence by repeatedly mentioning the status of growth both in home and around the globe, while American companies tend to use precise numbers to impress their investors and enhance their own reliable corporate images.

Limitations and Future Studies

The present study can help to better understand the corporate images displayed by those Chinese and American companies. It is also a good practice of the study in collocational analysis with the statistics method of MI score and frequency count. Despite the findings of this study, it still has several limitations. For instance, it did not limit the industry examined, and this paper only selects two shared keywords of the two corpora to form collocational analysis, which might cause some biases to the result. Future studies can choose companies in one certain industry, and explore more keywords to show a more holistic view of the corporate images reflected by letters of shareholders.

References


