HYPHENATED WORDS IN BUSINESS NEWS

REPORTING

Mémoire réalisé par
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ABSTRACT

This dissertation is based on the analysis of hyphenated words in business news reporting. The purpose of my investigation was to see to which extent hyphenated compounds (i.e. adjectival compounds) before head nouns are reflected in a corpus of Business News reporting. The corpus on which my investigation is based is the reduced version of the BENews corpus compiled by Goossens (2014) for her PhD thesis *"Quantity Approximation in Business Language. A Contrastive, Corpus-driven Approach (Dutch, English, French)"*. In the dissertation business journalism and the typical linguistic characteristics of business news reporting are discussed, as well as word-formation processes in English, zooming in on adjectival compounds. In the practical part of this dissertation the major findings are presented, for instance, that adjectival compounds are frequently used in business news reporting, they are helpful in formal business writing and they are flexible, as new compounds can be created on the spot to allow faster reading.

Cette thèse est basée sur l'analyse des mots à trait d'union dans les rapports d'actualités commerciales. Le but de ma recherche était de déterminer dans quelle mesure les mots composés sont reflétés dans un corpus de rapports d'actualités commerciales. Le corpus sur lequel ma recherche est fondée est la version réduite du corpus BENews compilé par Goossens (2014) pour sa thèse de doctorat *"Quantity Approximation in Business Language. A Contrastive, Corpus-driven Approach (Dutch, English, French)"*. Dans la thèse le journalisme des affaires et les caractéristiques typiques des rapports d'actualités commerciales sont analysés, ainsi que les processus de formation de mots en anglais, avec un accent sur les adjectifs composés. Dans la partie pratique de cette thèse, les résultats principaux sont présentés. Ainsi, les adjectifs composés sont fréquemment utilisés dans les rapports d'actualités, ils sont très utiles dans l'écriture formelle et ils sont flexibles, car de nouveaux mots composés peuvent être crées sur place pour permettre une lecture plus rapide.

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TABLE OF CONTENTS

INTRODUCTION

In the world that is changing and developing all the time, news and information are easily accessible via numerous media. Journalism is changing too, and as a result, new types of journalism appear. **Business journalism** is one of the most important and developed types of journalism nowadays.

The language used in business news reporting varies depending on whether news is "hard" or "soft" (See Section 1.1.), whether it is published in a source for general or specialized public, etc. News reporting includes special linguistic strategies and methods; it should be formal, concise, and relevant, as well as recent, fresh and appropriate.

Hyphens are essential for creating compound words; some linguists take hyphenation as their criterion for compound status (e.g. Biber et al., 1999). The different style guides that are discussed in Chapter 2, point out that hyphens are essential, if the text is to make immediate sense. They also help to avoid ambiguity, to show that the word is a single compound word, to form a new adjective from two or more words, to provide authors with a more compact expression and to add individualism to the text (e.g. by means of compression).

Nowadays, most news is written in English, as it has become an international language, the language of international commerce, business and diplomacy. This is why our investigation is based on hyphenated words extracted from the reduced version of the BENews corpus compiled by Goossens (2014). This corpus consists of 980 articles from the English and American sources of business news reporting, such as *The Independent, Times, International Herald Tribune, Time Magazine, Financial Times* and *The Economist.*

This dissertation aims to explore the hyphenated compound words in business news reporting that are used as adjectives (i.e. adjectival compounds) before head nouns in a corpus. In the dissertation, the following research questions were addressed:

- To what extent are hyphenated adjectival compounds (before head nouns) used in a corpus of Business News Reporting?

- How can the hyphenated adjectival compound be characterized in terms of structure and meaning?

- To what extent can the hyphenated adjectival compounds focused on in this study be regarded as well-established compounds?

In the theoretical part of this dissertation (Chapters 1 and 2) I described business journalism and the typical linguistic characteristics of business news reporting, as well as word-formation processes in English, zooming in on compounds and adjectival compounds.

Neologisms in business news reporting and the points of view on the use of hyphens in English words are also discussed. Chapter 3 describes the corpus that was used for my investigation of hyphenated words in business news reporting, and the results are presented in Chapter 4. The tokens under study are categorized according to their internal structure based on Biber et al.'s (1999) adjectival compound patterns and according to the semantic fields to which they can be seen to belong.

CHAPTER 1. BUSINESS NEWS REPORTING

Nowadays, news and information are available anytime via the Internet, television, mobile phones and printed media. Semino (2009: 439) argues that it is still relevant to study the language of newspapers, as there are about 45 per cent of all adults in the UK who read a national newspaper every day.

The data used in this study are made up of business news reports. The first chapter focuses on business journalism and on the typical linguistic characteristics of business news reporting.

1.1. Business journalism

The world and society today are fast-changing, innovative and boundless. The initial purpose of journalism, which was gathering information and keeping citizens informed, has changed throughout the years, too. With the development of journalism in different media forms, of the Internet and modern technologies, new types of journalism have appeared and have given new dimensions to the field of mass media. Examples include environmental journalism, video journalism, online journalism, business journalism, etc. Even though business journalism existed even in the Middle Ages and helped traders communicate with each other, it is developing and improves all the time.

In the *Encyclopedia of Journalism* (Sterling, 2009: 225-226), **Business journalism** is defined as reporting and writing about businesses and the economy. In addition, it commonly includes other beats such as labor, workplace, technology, personal finance, investment, and consumer reporting, as well as investigative reporting focusing on these topics. Moreover, business journalism in its role as a watchdog on companies and regulators can be credited for uncovering illegal and unethical practices that have caused investors to lose millions of dollars and workers to lose their jobs.

Business journalism covers news about everything that relates to the field of business. It also analyzes the economic changes in a society, tracks the stock market. This is why business journalism is often referred to as financial journalism. In the book *"Linguistic Ethnography"* (Copland & Creese, 2015), the authors divide business news into *"hard"* and *"soft"*. *Hard news* comprises information about financial markets, finance, politics, war,

disaster, science, law, crimes, stock exchange, etc. *Soft news* gives information about personal finance, products and marketing, as well as people, places, issues, community problems, etc. As for the groups business news targets, there are financial information service providers, which target professionals in the field of business or finance that are financially literate, whereas there are also mainstream providers of Business News that explain news in a more informal way, targeting a wider audience.

It is worth pointing out that the word *"news"* originated from the adjective *"new"* and implies some information that was unknown before. It is also one of the multiple genres in journalism, which includes special linguistic strategies and methods. For example, it should be formal, concise, recent, fresh, appropriate and relevant. News has also a restricted period of validity: once the information is read, it loses its novelty. In other words, novelty is a relative notion, which can be reframed as a short period of validity (Adamzik, 2004), meaning that once a news message has been released, it quickly loses its primary function as news, although it may still remain relevant when the event it communicates has such an impact that it gets integrated in a society or community's collective memories (Catenaccio, 2011: 1844).

Nowadays, detailed and recent articles about hard and soft business news can be easily found not only in printed sources, like paper newspapers and magazines, or through television and radio, but also online. Almost all of the business magazines have an application that is free of charge and can be downloaded on any device. Examples of online sources that will be used in this thesis are: The Guardian, The New York Times, The Economist, Forbes, BBC, CNN, Reuters, etc.

The importance of business journalism grew fast during the last century due to constant and significant changes in the world's economy. It began to flourish in the 19th century in America because of the fast development of American business, and especially during the transition of Wall Street into one of the most important financial centers in the world at the end of the 18th century. Nowadays business journalism reports on the stock market and the most prominent financial institutions. *The Wall Street Journal* was founded in 1889 and started to provide information about the stock market and business news in New York, and later in Philadelphia and Boston (Sterling, 2009: 227-229).

Thanks to the expansion of the Internet, business journalism is in full bloom and accessible everywhere. Business journalists can more easily gain access to documents and

public records and therefore they can cover companies in more depth. As more readers turn to the Internet for up-to-date business and financial information, different online sources appear to be well situated to cater to consumers of news. In addition, traditional business journalism publications such as *Business Week* and *Fortune* have been boosting the amount of information on their websites. In 2009 *The Wall Street Journal's* website, for example, had more than 1 million paid subscribers, making it one of the largest paid sites in the world (Sterling, 2009: 229).

As common as it is in most industrialized countries, the role of the business journalism in developing countries is more limited. These countries are not fully mentioned in international resources, and the citizens do not have the opportunity to follow the changes in the economy or in the stock markets of their countries (Gurtner, 2010)[1].

According to Sterling (2009), Buckshon (2010), business journalist has some strict rules to follow. For example, not giving preference to any company or source; making a broad investigation, including rivals; being able to present a full picture, giving facts, providing explicit, truthful and objective information. As business journalists write mostly about money and where to invest it, the articles should not be in any way "influenced" by outer sources. In the meantime, they should include some strategies and advice from a number of credited experts.

As business became a more important sphere of human activity, business linguistics transformed into a separate field of linguistics, with its own features and linguistic properties that distinguish it from other styles. It is obvious that business texts are different from scientific texts, fiction or narrative nonfiction. Considering these characteristics, the question arises, whether we can or not treat business nonfiction as a separate genre or business linguistics as a discipline.

Business Linguistics is a field that explores the specific functioning of a language in a business context, investigates the use of language resources in business activities, and studies verbal and para-verbal aspects of business communication. The spectrum of its interests is based on a multidisciplinary synergetic approach and includes such key areas as: business discourse, language of advertising and marketing, business rhetoric, documentation

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[1] Gurtner, B. (2010). *The Financial and Economic Crisis and Developing Countries.* Online on: https://poldev.revues.org/144 (Last visited May 25, 2017)

linguistics, <u>language of business media</u>, intercultural business communication, etc. (Daniushina, 2010: 241-242). Business linguistics is also tightly interrelated with news linguistics because they both use the language of business media, of socio-economic relations, of advertising and marketing.

The practical value of business linguistics is very broad, too. Not only students and professionals can use it in terms of their studies and research in different fields, such as PR, management, marketing, advertising, economics; but also us, consumers. It could be very useful to have deeper knowledge in what we see every day: advertising, B2B, B2C relationship, etc. and be able to identify the techniques that influence the public opinion.

1.2. Linguistic characteristics of business news reporting

According to Laurie (2007) and Weber (2006), the first newspapers that appeared in the 17th century carried only pure information. By the 19th century, newspapers became more communicative: comments were allowed and newspaper language was finally acknowledged as a particular style. Articles have the purpose of informing, instructing and entertaining the reader. Modern newspapers and magazines carry different types of material: articles and comments about them, gossip, life stories, advertisement, puzzles, horoscope, and so on. The entertaining part is not considered as a representative of newspaper style. However, articles on science, literature, modern technologies, art, politics, business or finance belong to the newspaper style.

Normally articles on such topics state facts without making comment. The author is not supposed to make such articles personal or add emotional colouring to them. This is why the vocabulary would be common, understandable and neutral. Having said this, there are issues that arguably not be discussed neutrally. For example, the reaction to the EU referendum was obvious and very personal in the articles and headlines of many British newspapers. According to a study, led by Lees who is the Reuters Institute for the Study of Journalism research officer for European Journalism Observatory and a British business journalist, Daily *Telegraph* and *Daily Mail* published more information supporting Brexit, while *The Guardian* was obviously pro-remain (Greenslade, 2016). Her review of the output of the three papers is part of a wider study conducted by the European Journalism Observatory (EJO), which in its turn is part of "Will it kill us, or make us stronger? How

Europe's media covered Brexit" study. Lees concludes that "commercial priorities also influenced editorial decisions" (Greenslade, 2016). Baldasty (1992) argues that "news became a commodity valued more for its profitability than for its role in informing or persuading the public on political issues".

Newspapers were eager to alienate readers who voted to remain at a time when the UK was deeply divided over the result. Indeed, newspapers have a great power to influence people and the neutrality of the articles is arguable. For instance, the articles published in the newspapers mentioned above clearly sought to influence public opinion on the topic of Brexit. Consequently, the language used contained vocabulary with evaluative connotation. For example, the articles in *The Guardian* contained articles with such sentences or headlines as "businesses will leave the UK", "unemployment will rise", "divisions will widen". Concerning headlines, in addition to giving information on the subject, they can also carry appraisal, which is reflected in the size of the headline, its placement, the use of emotionally coloured words. To catch the readers' attention, headlines also need to be easily readable, simple and appropriate. Their style can be described as telegraphic and the choice of words tends to be affected by the topic and the kind of reader associated with the paper (Reah, 2002).

Vestergaard (2000), a researcher at Aalborg University, points out that **news reports** can be regarded as the prototypical genre of newspaper text. It is a relatively short, factual account of hard or soft news that is presented as a narrative with a typical structure. A narrative is a story, a spoken or written account of connected events or actions. Vestergaard T. (2000) in "*Analysing Professional Genres"* by Anna Trosborg writes that the news report is by far the predominant genre in the training of journalists. "What the news report does is simply to give an account of events as they actually happened" (Trosborg, 2000: 97).

Business news reporting has its own linguistic peculiarities. For instance, business articles have a special vocabulary (NewsTalk&Text Research Group, 2009; Goumovskaya, 2010; Reah, 2002). Examples include:

- **Special political, business and economic terms** (*opinion polls, budget deficit, B2B);*
- **Clichés, i.e. stereotyped expressions** (*long-term agreement, data-driven, paradigm shift, win-win situation);*

- **Abbreviations for the names of organizations, companies, offices or businesses** (*WTO* – World Trade Organization*, B2C* – Business to Consumer*, CEO* – Chief Executive Officer*, EBITDA* – Earnings before Interest, Taxes, Depreciation, and Amortization*);*
- **Neologisms** *(Crowdsourcing* – the activity of getting a large group of people to contribute to a project or task*, app* – application for a smartphone or a tablet*);*
- **New words, especially in finance** *(dead cat bounce* – a situation when the prices/sales rise a little bit after a large fall before falling again*, e-cash* – the money on the credit card that does not exist in its material form and is used to make purchases on the Internet);
- **Foreign words** (*ad hoc, idem, i.e., curriculum vitae (CV)* – from Latin, *carte blanche* – complete freedom – from French).

Semino (2009: 445) in the Chapter 24 of the book *"English Language: description, variation and context"* defines the following main elements of a news report**: headline, attribution** (the information about the agency, the author of the article; time and place); **lead** (summary of the story) and the **main body** of the news report itself. She also describes several areas of language that are important in the way people and events are presented in business news reporting. Semino (2009) marks out the next characteristics:

- Noun phrases are used to refer to people and groups;
- Different kinds of verbs are used to refer to actions and events;
- Nouns are used instead of verbs to refer to actions and events ('nominalization': happy - happiness);
- Passive voice is preferred to the active voice to allow the omission of the agent;
- Metaphorical expressions are used to describe things;
- Figures are used to back up claims;
- Vague and exaggerated expressions are used to describe actions and events.

Based on the analysis of several business articles on *The Guardian* and a number of guidelines on the site of Universities, such as KU Leuven, or McGraw Hill Higher Education (an American learning science platform and one of the "big three" education publishers with customize educational content) news reporting tends to be:

- **Impersonal**: the author has to keep distance from the story and make the article neutral and objective. This is why most articles are written in the third person singular;

- **Mostly written in the past tense:** usually what is being told in an article has already happened, this is why the article is written in the past tense;
- **Simple:** the articles should be clear and accessible to everyone. In a good article the sentences would be quite short; the choice of words and clichés would be understandable to any audience, concrete vocabulary;
- **Formal:** business articles are not the entertainment material, this is why formal words would be used, as well as no contractions;
- **Punchy:** a business article is not written just for business people, it should also grab the attention of other sections of the population.

The BBC has a booklet called *"The Language of the Media"²,* which is designed to introduce listeners to some of the genres that are used in the BBC World Service. The aim of the booklet is "to help you become a more effective listener in English"[3]. What is included in this booklet is relevant here as the BBC gives examples of good and bad news and introduces users to article evaluation. One of the types of the broadcasts that the booklet discusses is the **news report.** Again, BBC confirms the universal truth that "a news report gives you details of a news story. The reporter needs to choose the words he or she uses very carefully to make the story clear and unbiased".

The purpose of a news report is usually to give the listener / reader information in an interesting but objective way. As pointed out by the BBC, to do this, they often use the passive voice and the words which are near synonyms that are words which have nearly the same meaning. [4]

The passive voice adds formality to the article and helps to remain impartial. Changing the word order can also help to shift the attention of the reader to the subject. Compare, for example, *"A terrorist killed four people"* and *"Four people were killed by a terrorist".* The second headline sounds more formal and is focused on the result of the action. Synonyms or near synonyms are also often used to help to prevent repetition and keeps the report interesting and colourful.

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[2] BBC (2003). The Language of the Media. (Booklet). Online on:
http://www.bbc.co.uk/worldservice/learningenglish/radio/studyguides/pdfs/langmedia.pdf (Last visited Apr 30, 2017)
[3] Idem.
[4] Idem, p. 2

Biber et al. (1999: 476, 478) add that passives are very common in news, occurring about 12.000 times per million words and account for c. 15% of all finite verbs in news. For example: *be + accused, announced, arrested, charged, hit, released, sold*, etc. Many of the words used in passive in news reporting describe unfortunate events that happened to someone omitting the information about the person who performed the activity.

In written expository prose, academic journal articles and news reporting passive constructions are extremely frequent. Whole parts of the articles can be written in passive because it demotes the agent of the verb while giving topic status to the affected patient (Biber et al., 1999: 477). Biber et al. (1999) also point out that in academic writing it is used to omit mention of certain researchers or refer to aspects of scientific methodology and analysis. "The extensive use of passive voice conveys an objective detachment from what is being described" (Biber et al., 1999: 477).

CHAPTER 2. WORD-FORMATION PROCESSES AND THE USE OF HYPHENS IN ENGLISH

This chapter describes word-formation processes in English and zooms in on compounds and adjectival compounds. It then discusses neologisms in business news reporting before focusing on what a series of style guides recommend regarding the use of hyphens in English words.

2.1. Word-formation processes in English

English is the native language for over 300 million people. It is spoken in the British Isles, Ireland, the United Stated, Canada, Australia, New Zealand, the Republic of South Africa and many other countries (Puffer, 2004). It is estimated that around the same number of people speak it as a second language. Moreover, nowadays English has become an international language, the world's lingua franca, and more and more people speak English fluently as a foreign language or have at least a smattering of it. English is the language of international commerce and business, diplomacy and computing and simple international communication. This is why English is one of the fastest-growing languages in the world (Crystal, 1997; Crystal, 2003).

The vocabulary of English is constantly enriched owing to a number of domains, such as:

- **economics and finance** ('e-shopping', 'cybercash', 'bogof' – buy one, get one free)

- **politics** ('Brexit', 'republican'ts' – the 49 percent of Republicans who, in a recent survey, were unable to explain the meaning of their party's initials "GOP")

- **education** ('nerd', 'to google' – to look up for information using Google search engine)

- **everyday life and the Internet** ('skyping', 'snapchatting', 'tbt' – throwback Thursday, 'hashtag', 'noob' – someone who is new to an online game or community, troll – someone who posts rude and obnoxious comments on social media)

- **popular culture** ('Brangelina' – Brad Pitt and Angelina Jolie, 'LGBTQIA' community), etc.

The term **word-formation processes** is used to refer to the ways new words are created and become part of the language. In English, there are multiple types of word-formation processes including *acronymy, back-formation, blending, borrowing, clipping, conversion (or functional shift / zero derivation), derivation, eponymy and invention (word coinage)* (Biber et al., 1999; Quirk et al., 1985). These processes are briefly described in section 2.1.1. below. Compounds, which are the focus of this dissertation, will be discussed in section 2.1.2. Neologisms in business news reporting will also be discussed.

2.1.1.   Types of word-formation processes in English

According to Biber et al. (Biber et al., 1999: 57), lexical words in English may consist of a single morpheme (which is the smallest meaning-carrying unit), but they are often more complex in structure. Complex word forms result from three main processes: **inflection, derivation** and **compounding.** Inflection and derivation result in complex forms, consisting of a base plus one or more affixes (suffixes or prefixes).

Derivation is "used to form new lexemes, either by adding derivational prefixes or suffixes" (Biber et al., 1999: 57). The authors also point out that new words can be built up with a number of prefixes and suffixes and can become very complex (e.g. preindustrial, industrialization).

Prefixes are word-initial and include examples such as un- in *unusual* and re- in *rearrange*. **Suffixes** are word-final and include examples such as -ful in '*meaningful'* or -ist in '*activist'* (Laws, 2014). "These affixes may change the meaning of a word, e.g., from the positive connotation of the adjective *'kind'* to the negative *'unkind'*, and may also change word class, e.g., the verb *'close'* to the noun form *'closure'* (Laws, 2014: 4).

Such suffixes as *-tion, -ity, -er, -ness, -ism, -ment, -ant, -ship, -age* are used to form new nouns (Biber et al., 1999: 324). Suffixes *-ise* or *-fy* change adjectives or nouns into verbs. The suffixes *-al, -ish, -able* are used to form new adjectives and the suffix *-ly* is used to form new adverbs.

Laws and Ryder point out that prefixes son not change the word class of the base word and their function is to add additional information. As for suffixes, their function also lies in adding information and/or changing the word class of the base word (Laws, 2014). According

to Biber et al. (1999: 323), "noun derivational prefixes are considerably less productive than the derivational suffixes".

An **acronym** is an abbreviation consisting of the first letters of each constituent word in a phrase or sentence and is pronounced as a word. For example, 'AIDS' is an acronym for 'Acquired Immune Deficiency Syndrome' and 'NASA' stands for 'National Aeronautics and Space Administration'. The process of creating words from the initial letters is called **acronymy,** and all the words created function as nouns. According to Quirk et al. (1985), there are two main types of acronyms: (1) Acronyms which are pronounced as a word; e.g. 'UNESCO' (= the United Nations Educational, Scientific and Cultural Organization). Many of them belong to the specialized languages of scientific, political or administrative fields of study. (2) Acronyms which are pronounced as sequences of letters, also called **"alphabetisms"** or **"initialisms"**; e.g. 'DVD' (= Digital Video Disk), 'DIY' (= Do It Yourself), 'FBI' (= Federal Bureau of Investigation).

Back-formation is the process by which new words are formed by the deletion of a supposed affix from an already existing word (Quirk et al., 1985). For example, the verbs *'edit', 'televise', 'donate', 'sculpt'*, have been created form the pre-existing nouns editor, television, donation and sculptor.

Blending is the process whereby new words are formed by combining parts of two words, usually the beginning of one word and the end of another (Godby et al., 1982). Examples are - '*smog'* (= smoke + fog), '*brunch'* (= breakfast + lunch), '*Oxbridge'* (= Oxford + Cambridge), '*vlog'* (= video + blog) and '*newtopia'* (= new + utopia).

Borrowing is the process whereby new words are formed by adopting words from other languages together with the concepts or ideas they stand for (Brun, 1983; Pei, 1966). English has borrowed words from other languages for centuries. French words like '*aperitif',* '*lingerie', 'café', 'petite'*; Italian words such as - '*mosquito', 'basta'*, and all the names of Italian food; the Spanish words: '*mango', 'taco', 'tango'*. The pronunciation of the words is usually adapted to that of the host language. Nowadays, all the languages are interrelated thanks to globalization and the international nature of English affects other languages, too.

Clipping is the process whereby new words are formed by shortening other words; i.e., by eliminating the initial part, the last part, or both parts, of those words (Zapata, 2000). According to the Russian linguist Arnold (1986), clipping can be **initial, final, medial or**

complex. For example, *ad* from advertisement, *gas* from gasoline, *veg* from vegetable are examples of final or back clipping; *phone* from telephone and *plane* from airplane are examples of initial or fore-clipping; *flu* from influenza, *fridge/frig* from refrigerator – medial or middle clipping, and *sitcom* from situation comedy is an example of complex clipping. Sometimes there are also graphic changes to the words, e.g. *mike* from microphone or *ambish* from ambition.

Conversion is one of the most frequently used processes to create new words by which words change their function without affixation or prefixation (i.e. without any change to its form) (Zapata, 2000). For example, then noun 'hand' is then also used as a verb 'to hand'. The English word *conversion* originates from the Latin word *convertere* (to change). New words (often verbs) are usually created from nouns (*a bag – to bag, a bottle – to bottle),* adjectives (*empty – to empty, full – to full),* shortenings (*a bach (bachelor) – to bach)* or even interjections (*wow – to wow).* The conversion from an adjective to a noun is also quite frequent, e.g. *international – the International, intellectual – an intellectual.* Brand names are also sometimes used to refer to the product itself, as in *facial tissue – Kleenex, plastic container – Tupperware, bandage – Band-Aid,* etc. People are used to name such products by their brand name, as in "I need to buy pampers for my kids". It does not mean that the person will buy specifically diapers of the brand "Pampers", but any diapers from other brands. As "Pampers", the product of Procter & Gamble, is the most known type of diaper created, the brand name replaces the initial name of the product. Besides, using brand names to refer to a product is also called **word coinage** or **invention.** The new words are created to give a name to new processes, products or ideas. Sometimes the newly invented words are based on existing words, but usually it is pure invention.

Eponymy is the process by which words for places, inventions, activities, etc. have been derived from (or based on) the proper names of persons somehow connected with such places, inventions, activities, etc. Examples are – 'watt' after James Watt, 'denim' for de Nimes (France), 'picasso' for the famous painter Picasso. (Zapata, 2000).

2.1.2. Compounds

Compounding consists in the combination of two or more (usually free) roots to form a new word (Zapata, 2000). According to the Russian linguist Elyseeva (2003), compounding

follows the formula "root + root", e.g. *cowboy, blackboard, spaceship* or "root + root + a derivational morpheme": e.g. *penholder, matchmaker, and babysitter.* Biber et al. (1999: 58) illustrates the large range of compound types in English as follows:

- **noun + noun** : *chairman, girlfriend, textbook;*
- **adjective + noun**: *bluebird, Englishman, nobleman, real estate;*
- **verb + noun**: *cry-baby, guesswork, lipstick;*
- **noun + adjective:** *sky-blue, user-friendly, carefree.*

A little bit further in the *Longman Grammar of Spoken and Written English* (1999: 325-326) Biber et al. add that **noun compounding** in English is a highly productive process and they illustrate some major patterns:

- **Noun + noun/verb-er:** *dressmaker, screwdriver, fire-eater;*
- **Noun + verb-ing:** *fire-fighting, housekeeping, window shopping;*
- **Verb-ing + noun:** *mockingbird, rocking chair, printing-press;*
- **Verb + particle:** *checkout, drop-out, go-between;*
- **Particle + verb:** *bypass, income, output;*
- **Self + noun:** *self-control, self-esteem, self-pity, self-indulgence.*

As we can see, there is no obvious rule for the representation of a compound word: it can be represented as two separate words, as an unbroken word or hyphenated. Biber at al. (1999: 326) precise that it happens partly because there is no clear dividing line between compounds and free combinations, especially this is the case for the most used and productive class, that of **noun + noun** compounds.

Zapata (2000) reports that compound words can be written in three different ways:

- **open:** with a space between the parts of the compound (*flower pot);*
- **hyphenated:** with a hyphen separating the elements of the compound (*flower-pot);*
- **solid:** without a space or hyphen between the elements of the compound (*flowerpot).*

It has been pointed out that hyphenation is more common in British English than in American English. In American English there is a tendency to write the compounds open or solid (Quirk et al., 1985).

The second element (or head word) of the compound usually determines the grammatical category to which the whole compound belongs. Examples of few possible combinations are (Quirk et al., 1985; Zapata, 2000):

- **n + n = n;** e.g., *sunrise, hand-shake, air-conditioning, cigar smoker, windmill;*
- **v + n = n;** e.g., *rattlesnake, call-girl, dance-hall;*
- **adj. + n = n;** e.g., *darkroom, highlighter;*
- **n + adj. = adj.;** e.g., *airsick, bottle-green;*
- **pron. + n = n;** e.g., *she-pony, he-goat;*
- **prep. + v = v;** e.g., *overtake, undergo;*
- **prep. + n = n;** e.g., *onlooker, off-day;*
- **adj. + adj. = adj.;** e.g., *gray-green, Swedish-American.*

However, the headword does not determine the grammatical class of the compound in some cases (Zapata, 2000). For example:
- **n + v = adj.;** e.g., *man-eating, ocean-going, heartfelt;*
- **adj./adv. + v = adj.;** e.g., *hard-working, good-looking, dry-cleaned;*
- **n + prep. = n;** e.g., *passer-by, hanger-on;*
- **v + (adv.) prep. = n;** e.g., *show-off, holdup;*
- **v + adv. = n;** e.g., *have-not, get-together.*

Compounds frequently have a meaning, which is not predictable from the individual parts (Biber et al., 1999). For instance, the compound *bluebird* (with primary stress on blue) is not the same as the phrase *blue bird* (with primary stress on blue). The former refers to a particular kind of bird; the latter is the description of the color of the bird (which is not necessarily a 'bluebird'). Another example is *Redcoat*, which means "a British soldier" and not "a coat that is red".

In the article *"What it's really like to be copy-edited"* (2010) on The Economist Language Blog, the authors call such compounds **fused** - a compound, which meaning is not predictable from its individual parts, when the stress moves to the first syllable, for example: a *darkroom* for printing (which is not necessarily dark) or a *blackboard* (which can also be white, green, etc.).

The Russian linguist Arnold (1986) describes a special type of compound word-formation process called **compression.** Compression is a process whereby compound words are created on the basis of word combinations or sentences, making them shorter. However, this method of word-formation is not widely used. Usually, these words can be found in academic prose or news reporting and they tend to be written with a hyphen. For example:

- She looked at him in the "What-a-brave-hero-you-are" manner (A. Christie);

- He-Who-Must-Not-Be-Named (J. K. Rowling);

- he said it in his usual "don't-touch-me" tone;

- to drop out – a drop-out game;

- to stay slim – a stay-slim diet;

- first come, first served – on the first-come-first-served basis.

News and particularly the business news writing is characterized by its compressed and formal style. For example, many single-word and phrasal verbs (such as *think, know, come on* and *get in)* are much more common in conversation than in written registers such as news reports or academic prose (Biber et al., 1999). According to Biber et al. (1999), newspaper stories are written and the language used is carefully edited and revised. They have a relatively focused purpose: to convey and evaluate information about recent events and newsworthy people. They claim a relatively objective presentation of information, often adopting an institutional voice. This is the reason why, notwithstanding the fact that there are multiple word-formation processes in English, not all of them can be used in the business news reporting. Hence, the most used type of English word-formation in news writing is **compounding**.

2.1.2.1. Adjectival compounds

According to Biber et al. (1999: 533), "compounds used as adjectives lend themselves to a compact and integrated expression of information". Adjectives can be added to other adjectives, nouns, adverbs, participial forms - for example - *open-minded* (noun phrase / noun-noun compound + *ed*-participle). The second element in this adjectival compound that is suffixed with *-ing* or *-ed*, however, is most often a verb. Such compounds (where the second part is a past participle) are widely used in news reporting, mostly because it is an effective way to convey information in a clear and concise way. For instance, the complex noun phrase *"The Democrats that are concerned about the issue of the global climate change"* can be easily transformed into *"The green-oriented Democrats"*.

As for the orthography of adjectival compounds, the results of an analysis conducted by Jovanović (2005) suggest that most of compounds are written with a hyphen. Of the 1584

cases of compounds in adjectival positions investigated, a total of 1441 items were spelt with the help of a hyphen (Jovanović, 2005: 211). It is noteworthy that Biber et al. (1999: 533)'s corpus-based study only focuses on hyphenated compounds as hyphenation is their criterion for compound status.

Biber at al.'s (1999: 535) corpus findings reveal that adjectival compounds are more common in written registers, especially news, but are relatively rare in conversation. These compounds are more common in attributive position, i.e. before head nouns in a noun phrase. **Adverb-adjective sequences** are the most productive type of adjectival compound in news reporting. News also comprises a lot of compounds that use numerals for their formation, such as *second-round, 12-hour type, 26-year-low, 14-year-old.*

The adjective, participle, other noun or a phrase that precedes the head of a noun phrase is called a **premodifier.** The preferred order of the premodifiers is the following one (Biber et al., 1999: 598):

Adverb + adjective + colour adjective + participle + noun + head noun.

Basing ourselves on the examples given in the *"Longman Grammar of Spoken and Written English"* (1999: 600)*,* we can clearly see that the first two elements in such sequences as **noun + participial modifier + head noun** (*English-speaking world, US-oriented politics)* are considered as adjectival compounds. Hyphenated nouns also often serve as premodifiers of some other noun: *annual soil-assessment competition* (Biber et al., 1999: 590).

Jovanović (2005: 211) also discusses coordinated adjective compounds like *"...where something furry and sharp-toothed and-clawed waited"* or *"Rudolph raised one water-and detergent-reddened fist…".*

"There exists a separate type of orthography when coordinated adjective compounds are written without doubling the first or the second element, where the composition chain formed with the help of hyphens is broken in front of the coordinating conjunction, which indicates that the word is not a simple compound, only to be continued immediately after the conjunction. In this elliptic way, any simple piling of words is avoided, as well as any possible repetition of the first, often modifying element in a number of compound adjectives obtained in this way" (Jovanović, 2005: 211).

Jovanović (2005) in his article *"Morphological Aspects of English Adjectival Compounds: Corpus Analysis"* points out phrasal adjectival compounds form only 6.81% of the adjectival compounds his work is based on, mostly in the field of creative writing. The researcher gives following examples: *"the boom in do-it-yourself therapy"* or *"in the same indulgent but-isn't-he-cute voice"* (2005: 214). As mentioned above (see section 2.1.2.), the Russian linguist Arnold (1986) calls this type of word-formation **compression.**

Biber at al. (1999) provide us with a table of the most common adjectival compound patterns, mostly taken from news reporting. They indicate that they use hyphenation as the clear and objective criterion for the compound status. In these patterns the authors also label as adverbs words that are adjectival in form, though adverbial in function (Biber at al., 1999: 533-535):

- **Adverb + adjective:** *critically-ill, politically-independent, nearly-equal;*
- **Adverb + *ed*-participle:** *new-born, well-timed, carefully-planned, highly-educated;*
- **Adverb + *ing*-participle:** *constantly-changing, rapidly-growing, straight-speaking;*
- **Reduplicative:** *wishy-washy, nitty-gritty, super-duper, goody-goody;*
- **Adjective + colour adjective:** *silvery-green, royal-blue, light-pink;*
- **Adjective + other adjective:** *sectoral-zonal, infinite-dimensional;*
- **Adjective + *ed*-participle:** *ready-made, soft-textured, white-washed;*
- **Adjective + *ing*-participle:** *biggest-selling, free-standing, longest-serving;*
- **Noun + adjective:** *age-old, iron-rich, life-long, subsidy-free;*
- **Noun + *ed*-participle:** *family-oriented, fuel-injected, US-oriented, world-renowned;*
- **Noun + *ing*-participle:** *confidence-boosting, life-prolonging, peace-keeping;*
- **Adjective + noun:** *cutting-edge, double-digit, full-time, inner-city;*
- **Participle + adverbial participle:** *blown-out, left-over, paid-up.*

Jovanović in his research based on 1476 adjectival compounds, includes a table called *"Number and percentage of word classes as first compound elements of adjectival compounds in the corpus"* (see Table 1), where he gives an insight into the different word classes of the first element of the compound (Jovanović, 2005: 216). As can be seen, the first element in adjectival compounds in his data are mainly nouns (42.07%, e.g. toothpaste-spotted mirrors), adjectives (28.12%, e.g. lower-class people) and adverbs (12.05%, e.g. well-brought-up young people).

Word class	First element	
	No.	%
NOUN	621	42,07
ADJECTIVE	415	28,12
ADVERB	178	12,05
PAST PARTICIPLE	98	6,64
NUMERAL	95	6,44
VERB	25	1,69
PARTICLE/PREPOSITION	23	1,56
PRESENT PARTICIPLE	19	1,29
PRONOUN	2	0,14
TOTAL:	1476	100

Table 1. *Number and percentage of word classes as first compound elements of adjectival compounds in the corpus* (Jovanović, 2005: 216).

In addition, Jovanović (2005: 225) also examined the most frequently used word classes as the second element of an adjectival compound (Table 2). The table shows that the second element in adjectival compounds in his data are mostly past participles (32.38%, e.g. slab-muscled arms and legs), nouns (27.98%, e.g. yellow-newspaper smell) and adjectives (20.93%, e.g. culture-free theory).

Second element word class	No.	%
PAST PARTICIPLE	478	32,38
NOUN	413	27,98
ADJECTIVE	309	20,93
PRESENT PARTICIPLE	193	13,07
PARTICLE/PREPOSITION	83	5,62
Total:	1476	100

Table 2. *Number and percentage of each word class item as second compound element in adjectival compounds* (Jovanović, 2005: 225).

2.2. Neologisms in business news reporting

A community is known by the language it keeps, and its words chronicle the times. Every aspect of the life of a people is reflected in the words they use to talk about themselves and the world around them. As their world changes – through invention, discovery, revolution, evolution or personal transformation – so does their language. Like the growth rings of a tree, our vocabulary bears witness to our past.

-John Algeo (Fifty Years Among the New Words 1)

Algeo (1993), the author of *"Fifty Years Among the New Words: A Dictionary of Neologisms, 1941-1991,* confirms the bond between language and culture. Both change over time and we can see the culture developing through the language. He also "points to vocabulary as the primary indicator for tracking this change and recognizes that new words or neologisms can be useful tools for understanding how culture is evolving" (Algeo cited in McDonald, 2005: 82). Language is a dynamic system and as such it evolves along three basic directions – in time (historically), in space (geographically) and in stratification (socially) (Grygiel, 2015).

We are living in the age of drastic technological development, as a result, it is not a wonder that neologisms emerge every day to describe new concepts and the older words tend to disappear because they lack significance.

Business is closely connected to the modern world of technologies and development. For example, words with the prefix *"e-",* which is a clipping of the word *"electronic",* like *email, e-commerce, or e-conference* are usual and well-known to us today, but they appeared after the mid-1970s. Considering the influence digital technology has had on society, it is not surprising that lexicographers have found that science and technology have been by far the most prolific sources of neologisms in recent times (Crystal, 2002; Knowles & Elliot, 1997; Van Dyke, 1992; Gozzi, 1990).

Usevičs (2013) in his article *"Neologisms in British Newspapers"* (2013) argues that newspapers have a major role in creating neologisms and using them in their articles. It is obvious that to become a neologism, a word undergoes certain linguistic processes.

Newmark (1998: 140) defines neologisms as "newly come lexical or existing units that acquire a new sense". According to the *Oxford Dictionary of English* (2003: 1179), a **neologism** is "a newly coined word or expression that may be in the process of entering common use, but has not yet been accepted into mainstream language" and the term itself was coined in English in 1803. As for the *Webster's New World Dictionary* (2005), it gives another definition for a **neologism**: "a new word or a new meaning for an established word; the use of, or the practice of creating, new words or new meanings for established words". Usevičs (2013) has the following definition: "A neologism is a word, a term, or a phrase that has been recently created often to apply to new concepts, to synthesize pre-existing concepts, or to make older terminology sound more contemporary". They tend to occur in rapidly-

changing cultures and situations, and they are often created by combining existing words or by means of affixation. Also, using such process as **reduplication**, we can create new words that can repeat an already existing one, or by playing with sounds, for example: *lovey-dovey*.

The Russian linguist Zabotkina (1989: 7) in her book "*New Lexicon in English: pragmatic aspect*" classifies **neologisms** according to their semantics and structure: (1) A word in which both the form and the meaning are new. (2) The form is new, but the meaning has already existed in some other word. (3) The meaning is new, but the form has existed before.

According to the use of neologisms in the language, they can be classified into three groups (Zabotkina, 1989; Zhou, 2016): (1) Words that appear every day in different contexts and are used by small groups of people. (2) Words that are already used by a bigger audience, but they do not have a wide acceptance. (3) Words that are recognized and accepted by wide audiences.

For example, in 2015 the Oxford Dictionary chose a pictograph of a face with tears of joy (emoji) as its Word of the Year[5]. It is the most used emoji in the world that is used instead of saying that someone is crying from laughter. Even though an emoji is not a word that consists of morphemes, it is considered a neologism by the Oxford Dictionary and has gained a lasting acceptance.

Zhou (2016), an associate professor at China Youth University of Political Studies, agrees with the fact that the development of technology, economy, science and business is fast and the new words created in News English are spread far and wide. She says: "However, no matter how great the changes are, formation of neologisms in News English conforms to the traditional rules of word formation. They are *abbreviation, compounding, derivation, loan words, analogy,* and *meaning transfer*" (Zhou, 2016: 292). The following paragraphs illustrate her findings.

Zhou argues that the readers of English news have an average of 3,000 to 5,000 vocabulary words in the United States. Most of them are just ordinary people who read the news briefly. This is why News English uses simple words, the reports are quite short, and abbreviations can be seen to play a significant role. For Zhou (2016), an abbreviation is a

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[5] Oxford Dictionaries Blog. The Word of the Year 2015. Online on:
http://blog.oxforddictionaries.com/2015/11/word-of-the-year-2015-emoji/ (Last visited Apr 30, 2017)

shortened version of a word or a phrase. As we have just seen above, an 'abbreviated' neologism can be categorized into three types: **acronym, clipping** and **blending** (Zhou, 2016: 293).

In her article Zhou gives interesting modern examples for these three types of word formation. In Business News we might find such **acronyms** as: *AIIB* – Asian Infrastructure Investment Bank, *WTO* – World Tourism Organization*, TMT* – Technology, Media, Telecommunications*,* or the well-known *BRIC* – Brazil, Russia, India and China or *BAM* – Brick and Mortar. She also cites recent **blends** that are widely used in the business sphere; e.g. *Chindia* – China and India*, Obamacon* – Obama and conservative or *e-lancer economy* – a blend of electronic, freelancer, and economy.

One new acronym that is often seen nowadays in Business news is *VR,* which stands for Virtual Reality, or the clipping *v-commerce* for virtual commerce, that is frequently used nowadays in the retail space. It might seem that virtual reality has nothing to do with business, but Mark Hardy (2017), the CEO of InContext Solutions says that BAM (brick and mortar) retail is now in a difficult place. The companies are merging and acquiring in the hope to stay afloat, but the way of doing business changes drastically and that is where VR has an enormous amount of potential[6].

Example of modern **compounds** in Business News include: *highlight, offset, cross-question, value-added, export-oriented, overseas-funded, newly-published, etc.* (Zhou, 2016: 294).

Zhou (2016) in the same article "*Neologism in News English"* gives several examples of neologisms based on the root 'China', which play a big role in international business, culture, politics and economy. For example: *Chinology, Chimerica, Chindia, Chinglish* (blending)*.* There is also **zero derivation** (changing the part of speech), as in the popular word *hype – to hype* (creating exaggerated interest).

Many hyphenated neologisms can be created with the help of **suffixation.** For instance, the suffixes *-less, -type* and *-like* are quite uncommon, but they have interesting uses. They remain their meaning as separate words and are almost invariably hyphenated, except

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[6] Hardy, Mark. (2017). VR is disrupting the retail industry – but not in the way you might think. Online on: https://www.linkedin.com/pulse/vr-disrupting-retail-industry-way-you-might-think-mark-hardy?trk=mp-reader-card (Last visited Apr 30, 2017)

for some exceptions with the suffix *-like: womanlike, unladylike* (Biber at al., 1999: 533). The suffix *-type* can be added to common nouns, proper nouns, as well as to adverbs, adjectives and prepositions: *Hollywood-type, Mr-Smith-type, candy-type, A-type.* This way, new words in the business or political context can be created, for example the highly used ones nowadays: *Trump-like, end-of-the-year-type receipts, family-area-type room, assembly line-like job.*

Some interesting modern examples can be given for **analogy** (creating new words by analogy with older ones). Some new words have been patterned on the well-known *white-collar* and *blue-collar* workers, i.e. people who are performing managerial or administrative work, and people, whose job requires manual labour. Nowadays, there are also *pink- collar workers,* i.e. people who are working in entertainment or sales, or other service-oriented work; *grey collar,* i.e. people who are not classified as white- or blue-collar. Interestingly, earlier '*pink-collar'* was a term for women who were doing the same job as their *blue-collar* counterparts. There are also *gold-collar workers,* who are "middle-skilled" workers, "trade workers who can navigate not only electrical and mechanical systems of traditionally designated blue-collar jobs, but also the advanced information technology components of these jobs" (Darwin, 2015). A b*lack-collar worker* is a person who trades in the black market (Urban Dictionary) and a *green-collar* worker is someone who works in the environmental sector.

2.3. Hyphens

As mentioned above, the use of hyphens is often discussed when investigating compounds and some linguists take hyphenation as their criterion for compound status in empirical investigations of compounds (e.g. Biber et al., 1999). This section is devoted to what a number of style guides issued by news providers mention about the use of hyphens. English is an international language and always changes: it is not a language with strict rules and conventions: there is no "English academy". This is why every University or newspaper has its own guide to create a negotiated common ground for at least a group of people.

The *BBC Academy* has a part of its site devoted to journalism and provides a News style guide for journalists[7]. The BBC arguably demonstrates very high standards of English in its written stories and the News style guide details some rules of grammar, spelling and punctuation. Their preferred reference is The Oxford English Dictionary. Regarding hyphens, BBC points out that they are often essential, if the text is to make immediate sense. The headlines "*Mother-to-be assaulted*" and "*Mother to be assaulted*" tell different stories as well as the phrase "*She never gives tips to black-cab drivers*" is completely different in meaning from *"She never gives tips to black cab drivers"*.

As already mentioned above, the BBC News style guide points out that hyphens are mostly used for compound adjectives, as in: *"I only travel in second class, so I buy second-class tickets"*. However, when a part of the adjective is an adverb ending in –*ly,* the hyphen is not needed, as in: *newly bought dress.* When one part of the sentence becomes an adjective and changes its position, it will also be hyphenated. For example, the sentence "Kate Smith is a mother of two and is 22 years old" will look like *"22-year-old mother-of-two Kate Smith"*.

Most phrasal verbs ending in *-in, -to, -on, -off* or *-up* need hyphens when they are used as nouns[8]. For example: *check-in, turn-on, turn-off, drop-off, pay-off*, etc. Nevertheless, nouns ending in *-out* and nouns where the second part contains four or more letters, are written in one word. For example: *dropout, payout, giveaway* and *takeover.*

The Economist also has its guide to English usage, which focuses on the English language and the typical features of news reporting[9]. As *The Economist* describes it: "It is no ordinary guide to the English language. It has a wit, verve and flair which make it much more than a simple work of reference. The Economist Style Guide is required reading for anyone who wants to communicate with style". The preferred reference of *The Economist* is The Oxford University Press Style Manual.

The online version of the Economist Style Guide claims that there is no firm rule to help decide which words should be written together, hyphenated or separate. The general rule is to avoid putting hyphens into words formed of one word and a short prefix, as in *asexual, biplane, geopolitical, neologism, redirect,* etc. Long words, especially if they involve running

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[7] BBC News style guide. Online on: http://www.bbc.co.uk/academy/journalism/news-style-guide/a-z (Last visited May 2, 2017)
[8] Idem.
[9] The Economist's Style Guide. Online on: http://www.economist.com/styleguide/introduction (Last visited May 2, 2017)

several consonants together, may have a hyphen: *over-governed, demi-secretary.* However, there are adjectives that do not conform to this rule, as in *overrated, understated.* The Dictionary.com Unabridged[10] mentions, in its definition of the prefix –*over,* that a hyphen, which is commonly absent from old or well-established formations, is sometimes used in new coinages or in any words whose parts it may be desirable to set off distinctly.

The article on hyphenation in *The Economist* style guide suggests that hyphens are used in:

- **Fractions** (whether nouns or adjectives): *two-sixths, one-seventh, four-eights*;
- **Most words that begin with *anti-, counter-, half-, inter-, non- and semi-:***
  o *anti-fascist,* **but** *antibiotic, antidote, antiseptic;*
  o *counter-espionage, counter-intuitive,* **but** *counteract;*
  o *half-baked, half-serious;*
  o *inter-country, inter-agency,* **but** *intermediate, international;*
  o *non-existent, non-payment,* **but** *nonstop, nonconformist;*
  o *semi-detached, semi-permanent, demi-angel ;*
- **Words beginning with Euro or euro,** as in *Euro-Mediterranean,* except *Europhile, Europhobe, Eurosceptic, euro zone and euro area;*
- **A sum followed by the word *worth:*** *€35m-worth of goods;*
- **Some titles:** *vice-president, major-general, under-secretary,* **but** *general secretary, deputy director, district attorney;*
- **To avoid ambiguities:** *a little-used car, but a little used-car; a high-school girl, but a high schoolgirl; third-world war, but third world war;*
- **Adjectives formed from two or more words:** *private-sector wages, state-of-the-union message, 25-year-old mother;*
- **Adverbs as a part of an adjective (especially when the adverb is short and common, such as *ill, well, little, much*):** *well-established, ill-equipped;*
- **Separating identical letters:** *co-operate, re-entry, pre-eminent,* **but** as mentioned above, there are exceptions that include *overreach, override, overrule,* etc.

As Business News is tightly connected to finance, it is also important to know about hyphenated figures. *The Economist* provides several good rules for using figures in articles, for example:

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[10] Over. Dictionary.com Unabridged. Random House, Inc. (Word definition). Online on: http://www.dictionary.com/browse/over (Last visited Apr 30, 2017)

- **Fractions should be hyphenated:** (*one-half, three-quarters*), unless they are attached to whole numbers, and also spelled out in words, even when the figures are higher than ten;

- **No hyphen in place of "to" except with figures**: *He received a sentence of 10-15 years in jail*, but *She promised to leave the flat within two to three weeks;*

- **Calibres with –inch and –pounder should be hyphenated**: *5-inch, 20-pounder*, but *60mm;*

- **Most aircraft names should be hyphenated:** f-*22, B-2 bomber, MIG-31M,* but some it is better to consult special literature to know the exact name.

The *University of Oxford Style Guide[11]* aims to "provide a guide to writing and formatting documents written by staff on behalf of the University and enables the University's formal documentation to be presented consistently across all communications and contains guidance on the University's visual identity". It has an online version that can also be downloaded for free.

This guide suggests using a hyphen:

- **In an adjectival phrase before a noun:** *the up-to-date list, the first-class ticket,* **but** if the adjectival phrase does not precede a noun, the hyphen is not needed: *the folder is up to date;*

- **In an adjectival phrase including a verb participle:** *the coat is loose-fitting;*

- **With prefixes only if required to avoid confusion / mispronunciation:** *pre-eminent objects, re-released animals.*

- **With prefixes before a proper name, number or date:** *mid-June, anti-Trumpism, pre-2000 crisis;*

- **In numbers that are spelt out:** *Twenty-seven is the most popular "random" number;*

- **In compass points used as directions:** *I am heading north-east.*

On the whole, such style guides encourage judicious use of hyphens. Moreover, they agree on such rules as:

- Hyphenating combinations with the adverb **well:** *well-sewn;*

- Omitting the hyphen when the adjective follows the noun: *the dress that is well sewn;*

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[11] The University of Oxford style guide. Online on:
https://www.ox.ac.uk/sites/files/oxford/media_wysiwyg/University%20of%20Oxford%20Style%20Guide.pdf
(Last visited on Apr 30, 2017)

\- Omitting the hyphen when there is an adverb that ends in **–ly:** *the poorly sewn dress.*

According to *The Associated Press Stylebook 2011[12],* "It is optional in most cases, a matter of taste, judgment and style sense. But the fewer hyphens the better; use them only when not using them causes confusion".

The American Heritage Dictionary of the English Language also mentioned that we must hyphenate any adjectival phrase before a noun should be hyphenated, as in *health-care bill.* However, when used as a noun, it will be written separately: *health care.* The dictionary also specifies that the noun can be spelled both: *health care* and *healthcare.*

Hyphens are very controversial, this is why every style guide advises to consult a dictionary, a grammar handbook or a stylebook to find a word combination that is most appropriate for the situation or the field of the written work.

The Chicago Manual of Style[13] gives the following: "A hyphen can make for easier reading by showing structure and, often, pronunciation. Words that might otherwise be misread, such as *re-creation* or *co-op,* should be hyphenated".

Reuters also provides us with a Handbook of Journalism [14]. They argue that "Journalism is a profession that has to be governed by ethical guiding principles rather than by rigid rules". This is why the Handbook is not a collection of the rules. Instead, it includes Reuters' "standards". The guide suggests using a hyphen:

\- To avoid ambiguity;

\- To show that the word is a single compound word;

\- When using an adjective and a noun together as an adjective (adjectival phrase before a noun);

\- To form a new adjective from two adjectives or from an adjective and a present or past participle;

\- When the second element in a word is capitalized: *mid-March, un-American*;

\- When the first element of a word is non-, except for *nonconformist;*

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[12] Taken form the American copy editors society site. Online on:
http://grammarguide.copydesk.org/2012/05/28/hyphens-compound-words/ (Last visited Apr 30, 2017)
[13] The Chicago Manual of Style. Online on: http://www.chicagomanualofstyle.org/home.html (Last visited Apr 30, 2017)
[14] Reuters Handbook of Journalism. Online on: http://handbook.reuters.com/index.php?title=H (Last visited Apr 30, 2017)

-        When the first word is a preposition, e.g. *under-secretary, vice-admiral,* or when a noun is followed by an adjective, e.g. *attorney-general.*

The *Reuters* gives an explanation on the hyphenated titles: "U.S. titles are not hyphenated: *the U.S. Attorney General*. Also do not hyphenate when the noun follows the adjective, e.g. *second lieutenant*".

The editorial Style Guide of the University of Cambridge [15] does not give as many explanations regarding the use of hyphens but it includes a list of words that should not be hyphenated. Supposedly these are words that are often used in different fields of studies and are usually written incorrectly. According to this style guide, the following words should not be hyphenated: *biomedical, fundraising, online, website, email, multidisciplinary, spinouts, startups* (when speaking about companies). However, the following words should be hyphenated: *co-ordinator* (two same vowels used together), *vice-chancellor* (the first word is a preposition) and *pro-vice-chancellor* (prefix + preposition).

The Guardian and Observer Style Guide [16] is also a guide to writing and editing in English for journalists. It is based on the *Collins English Dictionary. The Guardian* stresses that their style is to use only one word wherever possible so as not to clutter up the articles. Huddleston in his Introduction to the Grammar of English puts it next way[17]: "The transition from space to hyphen to close juxtaposition reflects the progressive institutionalisation of the compound". In the style guide, it is also mentioned that the words "*wire-less"* and "*down-stairs"* were once hyphenated and it is very old-fashioned to hyphenate the word *email*. To reduce miscomprehension and ambiguity, they tend to write most words together, such as: *thinktank (*because it is not a tank that thinks), *longlist* (not a list that is long) or *shortlist* (not a list that is short). *The Guardian* is well known for its laconic, comprehensible and well-written articles, especially business or political ones. The journalists do not use hyphens with most compound adjectives that are understandable without them, for example: *civil rights movement, financial services sector*. Overall, the goal of *The Guardian Style Guide* is to diminish ambiguity and avoid complex descriptions.

[15] University of Cambridge. Editorial style guide. Online on: https://www.cam.ac.uk/brand-resources/guidelines/editorial-style-guide (Last visited May 1, 2017)
[16] The Guardian and Observer Style Guide. Online on: https://www.theguardian.com/guardian-observer-style-guide-a (Last visited May 1, 2017)
[17] Taken from the part "Hyphens" on The Guardian and Observer Style Guide. Online on: https://www.theguardian.com/guardian-observer-style-guide-h (Last visited May 1, 2017)

As already mentioned, most dictionaries and style guides acknowledge the fact that many words that were hyphenated before, are written separately or as one word today. According to Rohrer (2007), the author of the article "Small object of grammatical desire" (2007) on the online version of BBC News, "The sixth edition of the *Shorter Oxford English Dictionary* has knocked the hyphens out of 16,000 words, many of them two-word compound nouns. *Fig-leaf* is now *fig leaf*, *pot-belly* is now *pot belly*, *pigeon-hole* has finally achieved one word status as *pigeonhole* and *leap-frog* is feeling whole again as *leapfrog*". He blames electronic communication for the slow elimination of punctuation. He argues that people type too fast to think about such a small detail as a hyphen. English is the international language of electronic communication; in addition, it is subjected to constant changes. The article dates 20 September 2007 and at the time professors and journalists had already come to the conclusion that there had been a decline in the use of hyphens (e.g. *bumblebee, chickpea,* or *crybaby* became one word a long time ago).

In the book *"The Fundamentals of Business Writing"* (2012) by C. Boros and L. Boros it is pointed out that hyphens may also be used as parentheticals, afterthoughts, inserts or asides. In Business Writings hyphens can be sometimes used in the place of parenthesis or brackets, e.g. "Reeder did not present – or even look for – evidence").

In short, it emerges from most of the style guides examined that hyphens have their place in the English language. For example, hyphens help form new words. Referring to the examples above, the words that became one word or are nowadays written separately have been hyphenated earlier. The hyphen also adds clarity to a description by creating adjectival phrases from separate words: *three monthly reports* or *three-monthly reports* and in the use of prefixes: *recover* or *re-cover, repress or re-press.* Hyphens signal that the two or more words are linked. Additionally, hyphens are still required to form original verbs for witty articles, vivid writing, and humour: *to video-game, to throne-sit, cool-as-a-cucumber type, no-meater (*the person who does not eat meat). What is also striking is that almost all the guides mention the used of hyphens in adjectival compounds.

CHAPTER 3. DATA AND METHOD

This chapter describes the corpus, on which my investigation of hyphenated words is based, and the research questions that are addressed in order to explore the hyphenated compound words in the corpus.

3.1. Research questions

This dissertation aims to explore the hyphenated compound words that are used as adjectives (i.e. adjectival compounds) before head nouns in a corpus of Business News reporting. The hyphenated words are extracted from the reduced version of the BENews corpus (Goossens, 2014).

More specifically this investigation sets out to address the following research questions:

1)   To what extent are hyphenated adjectival compounds (before head nouns) used in a corpus of Business News Reporting?

2)   How can the hyphenated adjectival compound be characterized in terms of structure and meaning?

3)   To what extent can the hyphenated adjectival compounds focused on in this study be regarded as well-established compounds?

3.2. Data

According to Goossens (2014: 150), "The BENews corpus consists of 1,041,049 words of business news reporting articles from six different publications. Both specialist and mainstream publications are represented in the corpus". The corpus comprises articles on world politics, economics, business and finance from British (four publications out of six) and American (the remaining two) sources of business news reporting. The BENews corpus was originally compiled by Goossens (2014) using the system developed for the GlossaNet interface (Fairon, 2006) by the *Centre de Traitement Automatique du Langage* (Université

Catholique de Louvain). As the system is based on RSS feeds, which are organized by theme, it gave her the possibility to collect articles from the domain of business.

Goossens (2014) also compiled the reduced version of the BENews corpus that consists of 500,000 words for her PhD thesis "Quantity Approximation in Business Language. A Contrastive, Corpus-driven Approach (Dutch, English, French)". The sources are the same: articles from *The Independent, Times, International Herald Tribune, Time Magazine, Financial Times* and *The Economist* (articles from 2006 to 2009). A total of 980 articles and 506,623 tokens can be found in the 500,000-word BENews corpus (Goossens, 2014: 155).

Publications	Number of articles	Number of words
The Independent	237	204,975
Times	256	145,223
International Herald Tribune	641	211,273
Time magazine	183	127,671
Financial Times	299	140,765
The Economist	248	211,142
TOTAL	1,864	1,041,049

Table 1. *Composition of the 1-million-word BENews corpus* (Goossens, 2014: 152)

3.3. Method

The hyphenated words under study in this dissertation were extracted automatically form the BENews corpus using WordSmith Tools. The Concord programme was used to retrieve all the instances of 'word + hyphen + word'.

Just over 6,000 tokens (6,082) were automatically extracted from the corpus for this thesis. A closer inspection of the items extracted reveals that they do not just include adjectival compounds used before head nouns. As a result, I have had to remove the items that cannot be regarded as adjectival compounds from the list yielded by the programme. Examples of items that were excluded are listed in Table 2. As can be seen from the table, items like dates, phone numbers, code numbers and other hyphenated words that do not have a noun that follows them were weeded out.

1	Somewhere between a **C-130 and C-17** in size and payload…

2	Mr Wedgwood **(1730-1795)** invented and produced…
3	GDP during the **1981-1982 recession**…
4	…detect **HIV-2 and HIV-1** Group O strains.
5	Whenever you dial **4-1-1**, chances are good that…
6	Warner will pay News Corp **10-15 cents** per subscriber…
7	…companies, including its **"AAA/A-1+"** counterparty credit rating…
8	A new one costs **$10m-50m** to buy…
9	…a $2.4 billion offer by **Coca-Cola** for China Huiyuan…

Table 2. *Hyphenated items that are not adjectival compounds*

To limit the data to a manageable size, my investigation is limited to the first 2,000 tokens extracted from the corpus. Out of these 2,000 items, 633 were weeded out, as they are not adjectival compounds used before head nouns. The cleaned-up list of items that will be discussed within the framework of this dissertation consists of **1,367 tokens**, representing **780 types** (see the list of items discussed in Annex 1). It is noteworthy that, while the majority of the items under study cannot be seen to recur in the corpus, a number of items occur two or more times (see Table 3 below).

1	**So-called** "core" / "bubble economy" / "shadow banking"	42 tokens
2	**Mortgage-backed** securities / funding markets / financial products	20 tokens
3	**Low-cost** airlines / loans / computers	17 tokens
4	**High-definition** television sets / technologies / broadcasts	15 tokens
5	**20-city** index	14 tokens
6	**Year-end** oil prices / surprise / sales push / trading / rally	13 tokens
7	**Non-executive** director	12 tokens
8	**State-controlled** system / asset / gas giant / oil group	11 tokens
9	**Old-fashioned** capitalism / techniques / play / enthusiasm	11 tokens
10	**Blue-chip** companies	9 tokens
11	**Cross-border** mergers and acquisitions / giants / competition	8 tokens

Table 3. *Types that occur multiple times in the corpus*

The 1,367 tokens were subsequently categorized according to **(1) their internal structure** (see Section 4.1.), based on Biber et al. (1999: 533-535) (see Table 4 below), and **(2) the semantic fields to which they can be seen to belong** (see Section 4.2.) (e.g. employment, quantification, duration) (see Chapter 4).

Adverb + adjective	*critically-ill, politically-independent, nearly-equal*
Adverb + *ed*-participle	*new-born, well-timed, carefully-planned, highly-educated*
Adverb + *ing*-participle	*constantly-changing, rapidly-growing, straight-speaking*
Reduplicative	*wishy-washy, nitty-gritty, super-duper, goody-goody*
Adjective + colour adjective	*silvery-green, royal-blue, light-pink*
Adjective + other adjective	*sectoral-zonal, infinite-dimensional*
Adjective + *ed*-participle	*ready-made, soft-textured, white-washed*
Adjective + *ing*-participle	*biggest-selling, free-standing, longest-serving*
Noun + adjective	*age-old, iron-rich, life-long, subsidy-free*
Noun + *ed*-participle	*family-oriented, fuel-injected, US-oriented, world-renowned*
Noun + *ing*-participle	*confidence-boosting, life-prolonging, peace-keeping*
Adjective + noun	*cutting-edge, double-digit, full-time, inner-city*
Participle + adverbial participle	*blown-out, left-over, paid-up*

Table 4. *The most common adjectival compound patterns (Biber et al., 1999: 533-535)*

As mentioned in Chapter 2 (see Section 2.1.2.1. Adjectival compounds), adjectival compounds tend to be rather productive. In an attempt to determine whether the types under study could be labelled as well-established compounds, their inclusion in the OED online dictionary (Oxford English Dictionary) was systematically checked (see Section 4.3.).

CHAPTER 4. DISCUSSION OF THE RESULTS

In this chapter, the 1,367 tokens under study are categorized according to their internal structure based on Biber et al.'s (1999) adjectival compound patterns and according to the semantic fields to which they can be seen to belong. Afterwards, the most frequently occurring adjectival compounds are checked in the online version of the Oxford English Dictionary in order to determine if they can be labelled as well-established compounds.

4.1. Internal structure of the adjectival compounds in the corpus

To analyse the 1,367 tokens, a table was created (see Annex 1). It includes the different structures of the hyphenated words in business news reporting are to be seen. The discussion focuses on the major adjectival compound patterns found in the data (see Table 4).

The main patterns discussed in this subchapter are:
- Adjectival compounds with a past participle as the second element: 30.43 %
- Adjectival compounds with a present participle as the second element: 5.99 %
- Compressed adjectival compounds: 3.65 %
- *"Noun + to + noun"* adjectival compounds: 2.1 %
- Adjectival compounds with prefixes: 7.24 %
- Adjectival compounds containing *"and"*: 3 %.

4.1.1. Adjectival compounds with a past participle as the second element

As we saw in Chapter 2 (section 2.1.2.1. Adjectival compounds), Jovanović (2005: 225) examined the most frequently used word classes as the second element of an adjectival compound. According to the results of his research, the most frequent second elements in adjectival compounds are past participles (32.38%). In our corpus, **416** tokens out of 1,367

have a past participle as the second element (see examples in Table 5). With 30.43% of the tokens under study, it is the biggest group in the corpus.

1	an independent **government-accepted** trustee
2	**value-added** services
3	a **much-admired** global leader
4	**worst-affected** industries
5	**middle-aged** person
6	a "**long-anticipated** step"
7	**mortgage-backed** securities
8	**the newly-created** position
9	the **much-discussed** "bad bank"
10	**male-dominated** fields

Table 5. *Examples of items with a past participle as the second element*

According to Biber et al. (1999: 535), "Compounds formed with an *ed*-participle as the second element are especially common in news. These forms provide an efficient way of compressing information into a two-word construction, as an alternative to a fuller casual expression (often involving a relative clause), such as *'an attack that was motivated by racism'*".

As can be seen from the table of the most common adjectival compound patterns in the *Longman Grammar of Spoken and Written English* (Biber et al., 1999: 533-535) (see Table 6 below), there are only 3 patterns with the past participle as the second element: *"adverb + ed"*, *"adjective + ed"* and *"noun + ed"*.

Adverb + adjective	*critically-ill, politically-independent, nearly-equal*
Adverb + *ed*-participle	*new-born, well-timed, carefully-planned, highly-educated*
Adverb + *ing*-participle	*constantly-changing, rapidly-growing, straight-speaking*
Reduplicative	*wishy-washy, nitty-gritty, super-duper, goody-goody*
Adjective + colour adjective	*silvery-green, royal-blue, light-pink*
Adjective + other adjective	*sectoral-zonal, infinite-dimensional*
Adjective + *ed*-participle	*ready-made, soft-textured, white-washed*

Adjective + *ing*-participle	*biggest-selling, free-standing, longest-serving*
Noun + adjective	*age-old, iron-rich, life-long, subsidy-free*
Noun + *ed*-participle	*family-oriented, fuel-injected, US-oriented, world-renowned*
Noun + *ing*-participle	*confidence-boosting, life-prolonging, peace-keeping*
Adjective + noun	*cutting-edge, double-digit, full-time, inner-city*
Participle + adverbial participle	*blown-out, left-over, paid-up*

Table 6. *The most common adjectival compound patterns (Biber et al., 1999: 533-535)*

From the **416** adjectival compounds with a past participle as the second element:

1) 74 compounds form the group *"adverb + ed + head noun"* (17.7%),

2) 21 compounds have *"adjective + ed + head noun"* as a pattern (5.05%),

3) 300 compounds form the *"noun + ed + head noun"* pattern (72.11%),

4) 21 compounds can be labelled as "others" because they have a past participle in their pattern, but do not conform to any of the patterns mentioned above (5.05%).

Patterns	Tokens	Types	Examples from BENews
Adverb + *ed*-participle + head noun	74	16	Taking executives hostage is a **well-established** tactic in France...
			...the **much-discussed** "bad bank"...
			Ms Moore is a **self-described** "magazine optimist" who thinks that...
			...governments should have **"well-defined** exit strategies"** for their banking rescues...
			A **much-debated** essay argued that IT does not matter.
			... making dozens of **once-coveted** delivery slots available.
			A **well-connected** conglomerate avoids collapse...
			a **much-admired** global leader in the upstream energy market

42

			...after Japan's **so-called** "bubble" economy of the 1980s ...
Adjective + *ed-*participle + head noun	21	11	A fashion model in a **black-and-white-striped** bathing suit…

White-coloured bottles of cava…

…she says, kneeling beside a **white-bearded** man.

…never taken up by the **Democratic-controlled** Congress.

…China Mobile Ltd., the dominant carrier, would be assigned the **Chinese-developed** TD-SCDMA standard.

This is a **double-edged** sword…

…demonstrate the superiority of **old-fashioned** family capitalism. |
| Noun + *ed-*participle + head noun | 300 | 193 | …the company is seeking to lure more **time-** and **cash-strapped** European clients...

...which provides **value-added** services for mobile phones...

... replaced by Satyam's **government-appointed** board...

…the Fed is expanding its purchases of **mortgage-backed** securities…

…politicians who have criticised **state-backed** banks for…

…new ventures, saying only that they were both **Europe-based** companies.

...reported to his President Dmitri Medvedev, his **protégé-turned** boss...

...one capital ratio now looks thin compared with its **state-capitalised** rivals...

...the two largest US retailers, to open |

			their own **state-chartered** industrial banks...
			...**family-controlled** companies that are run by their founders...
			...**state-dominated** life and general insurance sector.
			...most of the lay-offs so far in America have been in **male-dominated** fields.
			...**internet-enabled** mobile phones were expanding media groups.
			And then imagine you just had the worst wreck of your life while driving your **diamond-encrusted** Rolls Royce.
			...keeping the cost of reinsurance for US **hurricane-exposed** areas...
Others	21	18	…the emergence of **larger-than-expected** losses at RBS…
			…blamed **worse-than-expected** sales of some new products …
			…investors brushed off a **weaker-than-expected** report on manufacturing…
			…**non-equity-based** remuneration of executives in companies…
			What sort of **post-dated** cheques has Beijing written out as guarantees to the banks…
			Leaving aside the actual details of his **not-all-that-detailed** proposal…
			…a **pre-cooked** framework that he trots out as the solution to every problem.

Table 7. *Adjectival compounds with a past participle as the second element in the corpus*

Jovanović (2005: 216) (see Table 1), based on his research, points out that the first element in adjectival compounds is mainly a noun. This is also the case for the data in this dissertation, where the *"noun + past participle + head noun"* pattern (72.11%) is the most frequently used *ed*-participle pattern in my data.

The most frequently used past participle in the *ed*-participle adjectival compounds under study is **'-based'** (216 tokens) (see Table 8 *"Examples of the "noun + based + noun" structure).* As we can see from the table, the past participle *'-based'* is usually used with a name of a country or a city, e.g.:

- *'The **London-based** buyout firm Terra Firma', 'The **Zurich-based** bank', 'Paris-based banking subsidiary',* etc.

Interestingly, in most cases the pattern *"noun + based + noun"* describes the location of a bank, firm, or company.

1	...it itself was bought by the **UK-based** private equity firm Apax Partners...
2	...a situation unlikely to be changed by the **Shenzhen-based** company's new advertising campaign.
4	...and **London-based** broker-dealer subsidiaries of Goldman Sachs Group Inc.
5	...the parent of United, and **Houston-based** Continental Airlines Inc.
6	...only struck a deal with China Resources Peoples, a **Hong Kong-based** wireless operator...
7	InterContinental, a **British-based** firm which in addition to its eponymous hotel chain...
8	...the **Washington D.C.-based** Inter-American Development Bank...
9	...the **Nagoya-based** group said that all 12 of its Japanese plants would...
10	...it has hired Florian Lahnstein as **London-based** vice-chairman of European investment banking...
11	The **Tokyo-based** maker of the Walkman and PlayStation is especially vulnerable...
12	...which has also taken flak from **London-based** shareholders...
13	But as was the case in **console-based** gaming, the Chinese government...
14	The **Zurich-based** bank declined to say how much it gained from the sale...
15	Experticity, ClairVista's **Seattle-based** competitor...

Table 8. *Examples of the "noun + based + noun" structure*

Other common past participles of this group are **'-backed'** and **'-controlled'** (see Table 9 below).

Patterns	Tokens	Types	Examples from BENews
"noun + backed + head noun"	41	11	…The damage of **mortgage-backed** securities has moved… (15 tokens with the head noun 'securities'
			…**mortgage-backed** financial products…
			…the performance of **mortgage-backed** paper…
			…Gazprom, Russia's **state-backed** gas giant…
			…focus on **state-backed** guarantees…
			…**state-backed** French News agency…
"noun + controlled + head noun"	22	7	…enthusiasm for **family-controlled** firms…
			…transfer of a **state-controlled** asset…
			…**government-controlled** home loan giants…
			…a **Carlyle-controlled** holding company…
			…China's **state-controlled** aluminium firm…
			…bombing of **Hamas-controlled** Gaza…

Table 9. *Examples of hyphenated words with '-backed' and '-controlled'*

From the BENews corpus, 63 tokens with *'-backed'* and *'-controlled'* have been extracted (see Table 9 above) and it accounts for 15.14% of the 416 adjectival compounds with a past participle as the second element.

As for the "other" 21 tokens in Table 7, 10 tokens represent the group *"adverb + than + past participle + head noun"*, e.g.:

- *'**worse-than-expected** sales', '**better-than-expected** first-half results', etc.*

Some of the "other" tokens are made up of *"prefix + past participle + head noun"*, e.g.:

- *'**pre-cooked** framework', '**post-dated** cheques',*

and also by means of compression, e.g.:

- *'**how-could-this-have-happened** awe'.*

It is noteworthy that adverbs and nouns with an *–ed* participle in our data are mostly used to describe companies, banks, conglomerates and businesses, e.g.:

- *'enthusiasm for **family-controlled** firms', '**state-dominated** life and general insurance sector', 'A **well-connected** conglomerate avoids collapse',* etc.

As for the *"adjective + ed-participle"* items, they describe people, objects and concepts and are often colour adjectives, e.g.:

- *'A fashion model in a **black-and-white-striped** bathing suit', '**White-coloured** bottles of cava', 'he says, kneeling beside a **white-bearded** man',* etc.

4.1.2. Adjectival compounds with a present participle as the second element

As for the pattern with a present participle as the second element, only **82** tokens (5.99%) from our data display it. Based on the table of the most common adjectival compound patterns by Biber et al. (1999) (see Table 6), the patterns are the same as for the *"noun + past participle + head noun"* items, i.e. *"adverb + ing"*, *"adjective + ing"* and *"noun + ing"*.

From the **82** adjectival compounds with a present participle as the second element:
1) 9 compounds form the group *"adverb + ing + head noun"* (10.9%),
2) 16 compounds have *"adjective + ing + head noun"* as a pattern (19.5%),

3) 49 compounds form the *"noun + ing + head noun"* pattern (59.75%),

4) 8 compounds can be labelled as "others" because they have a present participle in their pattern, but do not conform to any of the patterns mentioned above (9.75%).

Patterns	Tokens	Types	Examples from BENews
Adverb + *ing-*participle + head noun	9	5	…they have spread beyond **early-adopting** companies in the technology industry… …China's own **once-booming** auto market… Despite the **still-deepening** global recession, stockpickers are defying the economic gloom… …face yet another knock to their **already-dwindling** returns.
Adjective + *ing-*participle + head noun	16	14	GLG, which profits from **short-selling** activities… …the interests of unions and national **collective-bargaining** deals… Zynga has adopted the **online-gaming** model prevalent in Asia… **Casual-dining** joints are reeling… …eat oysters and caviar at a **fine-dining** restaurant.
Noun + *ing-*participle + head noun	49	31	…the **record-breaking** packages dispensed in 2007… Pru, which also unveiled **forecast-beating** profits… …has built a **cloud-computing** platform for use by others… …corporate jets, defending them as **time-saving** tools.

			…can apply **cost-saving** tricks…
Others	8	6	One has to admire, in a **non-approving** sense, … …but shareholders can waive them in a **non-binding** advisory vote… This week Apple announced that it would soon drop the **anti-copying** software… Like-for-like sales at **pre-existing** stores…

Table 10. *Adjectival compounds with a present participle as the second element in the corpus*

Based on my research, the most common first element with a present participle as the second element is a **noun (**59.75%), as was the case for the patterns with a past participle as the second element.

The most frequently used type with the pattern *"adverb + present participle + noun"* is **'once-booming'** (4 tokens), e.g.:

- '*China's own **once-booming** auto market', 'Spain's **once-booming** economy is in recession', 'foreign investors pulled billions of dollars from its **once-booming** markets',* and *'The move came with the **once-booming** Russian economy'.*

As for the *"noun + present participle + noun"* pattern, several types have multiple tokens in the corpus, e.g.:

- '*record-breaking** rise of gas prices / year / declines / discounting / measures'* (7 tokens);
- '*cloud-computing** services / platform / businesses'* (3 tokens);
- '*time-consuming** strain / restructuring / gabfests / organic conversion'* (4 tokens), and *'**cost-cutting** plans / measures / drive'* (7 tokens).

Interestingly, the category "others" is represented by only 8 tokens and 6 types, and all of them have a prefix as the first element of the item, e.g.:

-*'non-approving sense', 'non-binding advisory vote / shareholder vote', 'micro-blogging services', 'non-controlling 27% stake', 'anti-copying software', 'pre-existing stores / friendships'.*

The words with a present participle in their structure describe the same categories as the words with a past participle, such as businesses, companies, markets, as well as finance, economy and politics. Basing myself on this, I can conclude that hyphenated words with present and past participles in their structure are widely used in business news reports for both general and specialized public. The examples (1) '*the record-breaking packages dispensed in 2007*' and (2) '*Like-for-like sales at pre-existing stores*' show us the difference in vocabularies, from what we can judge on their belonging to (1) business news reporting for more specialized public and (2) business news reporting for a more general public.

4.1.3. Compressed adjectival compounds

Words that attract attention in the data are hyphenated words created by means of **compression**. As seen in Chapter 2, compression is a way to make compound words based on word combinations or sentences (Arnold, 1986). Jovanović (2005) calls such items "phrasal compounds in adjectival positions" and points out that they are usually used for creative writing. Compressed adjectives are usually written with two or more hyphens. This method of word-formation is not often used, but such words can be found in news reporting or academic prose. It is a great way to compress information, avoid long descriptions and make the article wittier. Compressed adjectival compounds make 3.65% of the data under investigation here (50 tokens).

Biber and Gray (2011) discuss structural compression and point out that in writing sentences tend to be simple, and with multiple nouns or adjectives as premodifiers before the head noun. Moreover, "compressed phrasal expressions are preferred over elaborated clausal expressions in academic writing: they are more economical; they allow for faster, more efficient reading; and they are equally comprehensible to the expert reader" (Biber and Gray, 2011: 20).

1	…from the bank's **one-size-fits-all** interest rate policy…
2	…the best 16 go into an **"X-Factor-style run-off"** and the winner advances to the next stage.

3	This wasn't a **slow-fade-to-ruin** crime, but a **flip-the-switch-to-poverty** crime.
4	Loud cheers could be heard coming from the **behind-closed-doors** meeting as the workers discussed the issues.
5	…the arrogant "**can-do-no-wrong**" exuberance that dominated the mindset…
6	Leaving aside the actual details of his **not-all-that-detailed** proposal…
7	…designer clothes at **less-than-designer** prices…
8	Despite the missing billions and plenty of **how-could-this-have-happened** awe in the media…
9	…his "**more-in-sorrow-than-anger**" tone sharpened when he began to speak…
10	…he thinks today's circumstances provide a **once-in-a-lifetime** opportunity.
11	The then brand-new CEO of the Turin company, Sergio Marchionne, emerged as a **tough-as-nails** dealmaker…
12	Who would trust a company that uses **mark-to-make-believe** accounting.
13	The BBC has seized on a **tongue-in-cheek** comment by Morrissey…

Table 11. *Examples of compression in the data*

As the business news reports that compose the BENews corpus are for both specialist and general readers, such words are arguably extracted from articles for the general public. Specialist articles usually target professionals that are financially literate and articles for the general public are written in a more informal way. Compression is a good example of a non-specialized vocabulary that is usually not included in a dictionary.

Based on the compressed adjectival compounds extracted from the data (see examples in Table 11 above), it emerges that such words tend to be used more to describe abstract concepts, feelings and general notions, rather than business, finance and politics.

4.1.4. Noun + *to* + noun adjectival compounds

A little over 2% of the adjectival compound tokens in the data display the structure *"noun + to + noun + head noun"* (see Table 11 below). Such words are built with the help of a hyphen, because without it the phrase would not make sense. For instance, '*day-to-day*'

modifies another word, e.g. *'day-to-day responsibilities'*. Hyphenation here is a criterion of compound status (Biber et al., 1999: 533), because when such a compound does not premodify a noun, it is written separately, e.g. '*I change my opinion day to day*'. In several adjectival compounds the preposition "to" is used to indicate direction, e.g. '*Heathrow-to-Essex rail link'*. 11 adjectival compounds out of 25 are created with the help of reduplication, e.g.:

- *'**day-to-day** responsibilities', '**door-to-door** salesman', '**face-to-face** advice session', '**coast-to-coast** powerhouse'.*

1	Tim Cook will take over the **day-to-day** responsibilities of running the company.	9 tokens
2	…he announced his retirement from **day-to-day** operations at the company	
3	…creates a **coast-to-coast** powerhouse with community banks…	
4	…who tried to register for a **face-to-face** advice session…	
5	With five **back-to-back** PMIs signalling contraction…	
6	Rival **business-to-business** media group Euromoney Institutional Investor…	
7	…dubbed him the "anti-mogul" for his relaxed, **down-to-earth** management style…	
8	…managers also need **up-to-date** information about what is happening to their businesses…	3 tokens

Table 12. *Examples of "noun + to + noun + head noun" adjectival compounds*

4.1.5. Adjectival compounds with prefixes

7.24% of the 1,367 tokens under study (99 tokens) contain words with prefixes. As described in Chapter 2, (section 2.3. Hyphens), words with short prefixes are usually not hyphenated, but long words with several consonants may have a hyphen (*The Economist Style Guide*, 2017). The *University of Oxford Style Guide* (2017) suggests putting hyphens with prefixes to avoid mispronunciation and confusion, and also before dates, numbers and proper names. *The Economist Style Guide* points out (see section 2.3. Hyphens) that the majority of words that begin with *anti-, counter-, half-, inter-, non- and semi-* are hyphenated, but for some exceptions. The examples from my data (see Table 13 below) are in line with this rule.

According to Biber et al. (1999: 323), "noun derivational prefixes are considerably less productive than the derivational suffixes". The most frequently used items with hyphenated prefixes in our corpus of business news reports are: *'cross-border'* (8 tokens combined with different nouns) and *'e-commerce'* (5 tokens). As for the prefixes, the most productive ones in the corpus are *non-* (51 tokens) – 3.73%, *anti-* (18 tokens) – 1.31%, and *pre-* (14 tokens) – 1.02% (see Table 12).

1	**non-executive** director
2	**cross-border** co-operation / competition / trade
3	**e-commerce** game / software / company / sales
4	**co-chief** executive officer
5	**non-approving** sense
6	**non-bank** institutions / financial firms
7	**inter-agency** panel
8	**pre-Christmas** sales
9	**pre-election** promise
10	**anti-corruption** group
11	**anti-allergy** medication
12	**re-election** bid
13	**intra-E.U.** economic consultation
14	the **self-described** impulsive shopper
15	**Post-Crisis** World

Table 13. *Examples of words with hyphenated prefixes*

Prefix	Tokens	Types	Examples from BENews
Non-	51	25	While **non-carbonated** drinks account for only 35 per cent… …adequate special bankruptcy regime for **non-bank** financial firms. …Chrysler shares to Fiat for **non-cash** consideration… …joined the company's board as a **non-executive** director in September.
Anti-	18	13	Past downturns have also stoked **anti-business** feeling… …co-ops are often seen as hotbeds of radical, **anti-capitalist** thought.

			…dozens of firms suspected of **anti-competitive** behaviour.
Pre-	14	9	If the price-ratio needs to instead settle back to its **pre-boom** average… …cava makers were confident that they would have returned to **pre-boycott** levels…
Post-	11	6	…the **post-Christmas** retail rush was in full swing last Wednesday. …the **post-boom** age: mild-mannered, bordering on weedy and so soft-spoken that… Hungary, once the beacon of economic success in the **post-communist** Eastern Europe…
Cross-	8	1	…when it agreed principles on bankers' pay and **cross-border** co-operation… … to give Hamas militants an opening to halt **cross-border** rocket fire.
E-	9	2	He named **his e-commerce** company after the world's largest river… He named Amazon's **e-book** reader…
Co-	7	2	… Steve Mnuchin, the chairman and **co-chief** executive of Dune. …US signed an exclusive **co-development** agreement with XL TechGroup…
Inter-	6	3	… the Washington D.C.-based **Inter-American** Development Bank… … raises questions about whether the **inter-agency** panel is going beyond its mandate…

Intra-	1	1	… the U.K. risks being excluded from "deeper **intra-E.U.** economic consultation and coordination.
Re-	3	2	And Merkel faces a **re-election** fight in September this year.
Self-	6	4	…**self-deluding** Christopher Walken in "Catch Me If You Can" …a **self-described** "road warrior turned activist"…
Macro-	2	1	… rather than a technical problem that **macro-economic** policy…
Socio-	3	2	… as people in most **socio-economic** categories feel less affluent…
De-	1	1	… **de-equitisation** trend with IPO growth.
Over-	3	1	Merck will also bolster its international and **over-the-counter** sales.
No-	2	1	It won't necessary please the **no-change** brigade…

Table 14. *Hyphenated prefixes in the corpus*

Based on the examples in Table 14, we can see that hyphenated adjectival compounds with prefixes do not have necessarily the *"prefix + noun + head noun" structure,* e.g. *'**Pre-Christmas** sales', '**co-chief** executive officer',* but also *"prefix + adjective + head noun"* or *"prefix + past participle + head noun"* patterns. Examples are:

- *'**non-approving** sense', '**non-binding** advisory vote', '**non-carbonated** drinks account', '**post-dated** cheques'.*

Interestingly enough, some prefixes are only used in one adjectival compound, e.g.:

- ***"cross-"*** is only used in *'cross-border'* (8 tokens) + *mergers and acquisitions / giants / competition / co-operation / rocket fire;*
- ***"no-"*** is only used in *'no-change':* 2 instances of *'the no-change brigade';*
- the prefix ***"e-"*** is only used in such compounds as *'e-commerce'* (5 tokens) and *'e-book'* (4 tokens);
- the prefix ***"co-"*** is used only in *'co-chief'* (6 tokens) and *'co-development'* (1 token);

- the prefix **"intra-"** is used only in '*intra-E.U. economic consultation*' (1 token).

4.1.6. Adjectival compounds containing *'and'*

About 3% (36 tokens) of the adjectival compounds under investigation here contain the conjunction 'and', e.g. the structure *"noun + and + noun + head noun"* (2.1%).

1	...growing as crisis-hit firms adopt more of a **command-and-control** approach to management…
2	…he would go and see a senior chief executive with a **mergers-and-acquisitions** idea…
3	… the biggest-ever outsourced-maintenance agreement in the **pulp-and-paper** industry…
4	… assuming consumers would take longer to move away from its **bread-and-butter** business of film…
5	The chain raised £60m from a **sale-and-leaseback** deal on 65 of its properties with Arazim Investment…
6	Malaysia's national **oil-and-gas** company Petronas awarded two offshore sites…
7	… few other firms have the **research-and-development** resources to compete in these areas…

Table 15. *Adjectival compounds containing 'and'*

The other 0.9% are compounds that include dates and numbers, and describe duration and periods of time, e.g.:

- '**three-and-a-half** *months'*, '**two-and-a-bit** *years'*.

In some cases it can also be *"adverb + and + adverb + head noun",* e.g.;

- '**out-and-out** *regulations"*

or *"adjective + and + adjective + head noun",* e.g.:

- '**such-and-such** *political thing'*.

It is noteworthy that most of such adjectival compounds are created with the help of reduplication, as in '**out-and-out** *regulations".*

4.2. Semantic fields of the adjectival compounds

This section reports on the main findings from the semantic analysis of the adjectival compounds in my data. The hyphenated adjectives under investigation can be seen to belong to a number of **semantic fields: (1)** adjectival compounds including *'-based'* that describe companies / organisations, **(2)** adjectival compounds denoting periods of time, duration and age, **(3)** adjectival compounds denoting ethnicity, cultural and geographical affiliation, **(4)** adjectival compounds including *'so-called'*.

4.2.1. Adjectival compounds including *'-based'* that describe companies / organizations

The largest group includes 216 tokens, i.e. 15.8% of the 1367 tokens analysed, and is made up of **"noun +** *based* **+ noun"** compounds (Table 16).

1	...it itself was bought by the **UK-based** private equity firm Apax Partners...
2	...a situation unlikely to be changed by the **Shenzhen-based** company's new advertising campaign.
4	...and **London-based** broker-dealer subsidiaries of Goldman Sachs Group Inc.
5	...the parent of United, and **Houston-based** Continental Airlines Inc.
6	...only struck a deal with China Resources Peoples, a **Hong Kong-based** wireless operator...
7	InterContinental, a **British-based** firm which in addition to its eponymous hotel chain...
8	...the **Washington D.C.-based** Inter-American Development Bank...
9	...the **Nagoya-based** group said that all 12 of its Japanese plants would...
10	...it has hired Florian Lahnstein as **London-based** vice-chairman of European investment banking...
11	The **Tokyo-based** maker of the Walkman and PlayStation is especially vulnerable...
12	...which has also taken flak from **London-based** shareholders...
13	But as was the case in **console-based** gaming, the Chinese government...
14	The **Zurich-based** bank declined to say how much it gained from the sale...

| 15 | Experticity, ClairVista's **Seattle-based** competitor... |

Table 16. *Examples of the "noun + based + noun" structure*

The Oxford English Dictionary defines the word *"based"* as: (1) "Having or standing on a base of a specified kind, and (2) having as a foundation, fundamental principle, or underlying basis; having as a ground or underlying reason. [18]

The adjectival compounds including *'-based'* are widely used in the business news reporting arguably because it is a concise way to describe the location of a company / business / subsidiary, etc., e.g.:

-'the **Dubai-based** Landmark Group', 'the **Ontario-based** company'.

To a much lesser extent, this phrase is used to describe a source or an underlying reason, e.g.:

-'the **browser-based** approach', '"**market-based**" capital requirements', and '**text message-based** information service'.

Such a structure helps to compress information in one phrase and to avoid such long descriptions as "the Landmark Group that is based in Dubai" or "the company that is based in Ontario". Moreover, the pattern helps to attract the attention of a reader to the location / source and not the head noun itself.

4.2.2. Adjectival compounds denoting periods of time, duration and age

A rather large group of hyphenated compounds used in business news reporting is the one that is used to indicate a period of time, duration, age and quantity. These include structures like:

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[18] EOD (Online dictionary). Definition of *based.* Online on:
http://www.oed.com/view/Entry/15863?rskey=ao1Gpp&result=3&isAdvanced=false#eid (Last visited May 7, 2017)

-*"X-day + head noun"* (31 tokens),*"X-day week"* (16 tokens), *"X-and-a-half + head noun"* (8 tokens), *"X-year olds"* (2 tokens) and *"X-year-old + head noun"* (2 tokens) (see Table 17 below).

This group consists of 110 tokens (90 types) and makes 8.04% of our data. Most of these items include numerals, except for such adjectival compounds as e.g.:

- the **October-December** *period* (2 tokens), *the* **October-to-December** *quarter,* **half-day** *session* and **year-over-year** *US-China booking.*

Such adjectival compounds can also be labelled as "compressed compounds", as they are formed with the help of two and more hyphens.

1	Palestinian health officials put the **three-day** death toll in Gaza at 364…
2	The Royal Mail is to hold a **two-day** summit with union leaders next month…
4	…it will shift more than 2,000 workers to a **four-day** week and cut their pay by…
5	Lawson and Heaton (Apr 2008) 350 put on **three-day** week after closure of company's Birmingham section.
6	…the airline acquired by Mr Fernandes in 2001, began a **five-day-a-week** service from Kuala Lumpur to London…
7	… the largest payments of government money during its first **three-and-a-half** months on government life support.
8	It has gained more than 430 firm orders for the 787 in **two-and-a-half** years …
9	Against the dollar the pound slid to a **six-and-a-half** year low of $1.4385…
10	Last month, **99-year-old** general store Woolworths went into administration…
11	Among **12- and 13-year** olds, 37 per cent say they have created online profiles…
12	…with **year-end** oil prices barely a quarter of the July high.
13	Economic growth slowed to 3.1 percent in the third quarter from 6.2 percent in the **year-ago** period…

Table 17. *Hyphenated items describing periods of time and duration*

Our findings are in line with Biber et al.'s (1999: 535) observation news writers use very frequent compounds consisting of numerals and nouns, such as *'six-man', '24-hour',* and *'second-round'.*

4.2.3. Adjectival compounds denoting ethnicity, cultural and geographical affiliation

A group that consists of 63 tokens and makes 4.6% of our data is the one that is used to indicate ethnicity, cultural and geographical affiliation (see Table 18 below).

1	Mr Apotheker's parents fled all the way to the **Russo-Chinese** border…
2	As a result cava sales dropped nearly 7 per cent in 2005, dampening spirits in Catalonia, **north-eastern** Spain.
4	The **Canadian-born** magnate has already pleaded not guilty to an expanded 15-count indictment alleging fraud…
5	The **Italian-born, Canada-raised** Fiat chief told his American counterparts they would
6	The goods trade gap with **non-European Union** countries also hit a record…
7	… a deal to build diesel engines with Daimler-Chrysler, before the breakup last year of that **German-American** alliance.
8	…a **Franco-American** software firm whose products are supposed to drive SAP's future growth
9	… an alleged pyramid scam that collected more than $23 million from **Haitian-American** investors.
10	… the Washington D.C.-based **Inter-American** Development Bank and the Caracas-based Andean Development Fund.
11	Push with Russell Maliphant and Sacred Monsters with Akram Khan, the **British-Asian** choreographer.
12	… extended its review of the Chinese aluminium maker Chinalco's investment in the **Anglo-Australian** miner.
13	…a region near the **German-Czech** border that was inhabited by ethnic Germans…
14	Royal Dutch Shell, the **Anglo-Dutch** oil and gas giant was yesterday forced to warn shareholders about…

Table 18. *Hyphenated items describing geographical and cultural affiliation*

Most of these items have the *"adjective + adjective + head noun"* pattern (53 tokens). However, the other ten include structures like:

- *"adjective + past participle + head noun"*, e.g. **'Italian-born, Canada-raised** Fiat' or **'East Anglian-focused** business';

-*"prefix + adjective + head noun"*, e.g. **'non-Catalan** *president'*, **'non-European** *sites'*, **'all-European** *energy market'* and **'non-European Union** *countries'*.

Interestingly, 5 tokens out of 63 describe the affiliation to European countries or European communities, e.g.:

-**'non-EU** *member'*, **'all-European** *energy market'*, *'a* **pan-European** *practice'*, **'non-European** *sites'*, **'non-European Union** *countries'*.

Almost all of the hyphenated compounds denoting cultural and geographical affiliation describe the origins or the geographical position of businesses, firms, banks, e.g.:

-*'***all-European** *energy market'*, *'the* **German-Czech** *border'*, *'the* **Inter-American** *Development Bank'*, etc.

Such compounds can also describe the nationality or origin of a person, e.g.:

-**'non-Catalan** *president'*, *'the* **British-Asian** *choreographer'*, **'Haitian-American** *investors'*.

4.2.4. Adjectival compounds containing *'so-called'*

A little over 3% of the adjectival compound tokens under investigation here contain the structure *"adverb + past participle + head noun"*, i.e. *'so-called'* (43 tokens).

The Oxford English Dictionary defines the compound *'so-called'* as: "Called or designated by this name or term, but not properly entitled to it or correctly described by it".[19] The Macmillan Dictionary gives the next definition: "Used for showing that you think a word used for describing someone or something is not suitable".[20]

1	A multilateral assault on **so-called** "shadow banking" will be led by Lord Turner, chairman of the Financial Services Authority...	2 occurrences with 'shadow banking'
2	**So-called** "core" US inflationary pressures, which strip out food and energy costs...	
3	... as **so-called** collars have already kicked in on	

[19] EOD (Online dictionary). Definition of *so-called.* Online on:
http://www.oed.com/view/Entry/183732?redirectedFrom=so-called#eid (Last visited May 21, 2017)
[20] Macmillan Dictionary (Online dictionary). Definition of *so-called.* Online on:
http://www.macmillandictionary.com/dictionary/british/so-called (Last visited May 21, 2017)

	their loans...	
4	... a 39 percent decline in 1990 after Japan's **so-called** "bubble" economy of the 1980s burst.	3 occurrences with 'bubble economy'
5	This has raised the prospect of **so-called** quantitative easing - increasing the supply of money in the economy to buy assets from banks.	5 occurrences with 'quantitative easing'
6	... from passing a Resolution of Disapproval of the **so-called** Troubled Assets Relief Program...	2 occurrences with 'Troubled Relief Program'

Table 19. *Hyphenated items with 'so-called'*

Interesting information can be found on the adjectival compound *'so-called'* on the site of the American Media Research Center[21]. In the article *The Slant of "So-Called" Reporting* the authors point out that "some uses of the word are appropriately negative (calling professional wrestling a "so-called sport"), or introducing a new concept (the sale of "so-called conflict diamonds" to finance wars in Africa)[22]. The use of the compound *'so-called'* in business news reporting can also be regarded as a way for a reporter to subtly declare his opinion.

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[21] American Media Research Center. *The Slant of "So-Called" Reporting,* Online on:
https://www.mrc.org/bozells-column/slant-so-called-reporting called (Last visited May 21, 2017)
[22] Idem.

4.3. Well-established adjectival compounds

In this section, I will determine whether the types under study can be labelled as well-established compounds. To limit the data, my investigation is limited to the biggest groups of types in the data. I will also check the inclusion of these compounds in the online version of the OED dictionary (Oxford English Dictionary).

The main patterns that were discussed in the section 4.1.*Internal structure of the adjectival compounds in the corpus* are:

- Adjectival compounds with a past participle as the second element: 30.43 %
- Adjectival compounds with a present participle as the second element: 5.99 %
- Compressed adjectival compounds: 3.65 %
- *"Noun + to + noun"* adjectival compounds: 2.1 %
- Adjectival compounds with prefixes: 7.24 %
- Adjectival compounds containing *"and"*: 3 %.

A big part of the adjectival compounds with a past participle as the second element can be found in the OED. Such words as, e.g.:

- *'value-added', 'middle-aged', 'double-edged', 'well-connected', 'cash-strapped', 'internet-enabled', 'asset-backed', 'long-awaited', etc.*

can be found easily and are provided with a full description: pronunciation, frequency of use, origin, etymology, part of speech and the definition itself. These are the compounds that are frequently used not only in business news reporting, but also in everyday news and speech, and they are quite familiar to be regarded as well-established compounds.

Other compounds with a past participle as the second element that are more 'specialized' or include specific information like location, are not reflected in the dictionary, e.g.:

- *'Chinese-developed', 'government-appointed', 'protégé-turned', 'hurricane-exposed', 'diamond-encrusted', etc.*

The large groups of hyphenated compounds with the second part *'-based', '-backed'* and *'-controlled'* are not reflected either, as the information provided in the first part of the compound is too specific, e.g.:

- *'New-York-based', 'Tokyo-based', 'London-based', 'Europe-based', 'mortgage-backed', 'Hamas-controlled', 'Carlyle-controlled',* etc.

As for the compounds with a present participle as the second element, the situation is the same as with past participles as the second element. The compounds are very specialized and are created to convey specific information in a more concise way, e.g. next compounds are not reflected in the OED dictionary:

- *'once-booming', 'still-deepening', 'already-dwindling', 'collective-bargaining', 'fine-dining', 'collective-dining', 'online-gaming', 'cloud-computing',* etc.

Again, compounds that can be used not only in business news reporting are well-established and can be found in a dictionary, e.g.:

- *'early-adopting', 'short-selling', 'record-breaking', 'time-saving', 'non-approving', 'anti-copying', 'pre-existing',* etc.

As seen in Chapter 3, adjectives with a present or past participle are used in news reporting, because it is an effective way to convey information in a clear and concise way, and add clarity to the description.

Compression is a method of creating new compound words based on word combinations and sentences, and is usually used for creative writing. It is a good example of a non-specialized vocabulary that is created on the spot and is not included in a dictionary. Compression helps to describe feelings, tones and characters in a creative and unique way that is also concise and precise. None of the words in Table 11 *"Examples of compression in the data"* can be found in the OED, e.g.:

- *'more-in-sorrow-than-anger tone', 'how-could-this-have-happened awe', 'once-in-a-lifetime opportunity', 'tongue-in-cheek comment',* etc.

The *"noun + to + noun"* adjectival compounds are widely used in speech and news reporting, and they do not make part of specialized vocabulary. This is why all of the 25 *"noun + to + noun"* items from our data can be found in the OED dictionary, e.g.:

- *'day-to-day operations', 'coast-to-coast powerhouse', 'face-to-face advice session', 'business-to-business media group',* etc.

It is noteworthy that adjectival compounds with prefixes are almost not reflected in the dictionary. Only a small amount of hyphenated compounds with prefixes can be found in the OED, e.g.:

- *'self-deluding', 're-election', 'non-bank', 'cross-border', 'inter-American', etc.*

Such word as *'macroeconomic'* is written in the OED dictionary without a hyphen.

Adjectival compounds containing *'and'* are not reflected in the OED dictionary, except for such words as:

- *'out-and out', 'cash-and-carry', 'research-and-development'.*

Compounds that include numerals are not reflected in the dictionary (no entries found in the OED) and cannot be regarded as well-established compounds, as they are created on the spot and vary according to the date / quantity / duration, age, etc. For example:

- *'six-and-a-half year low', 'three-and-a-half months', 'two-and-a-bit years', 'in two-and-a-half years'.*

Out of the 1,367 tokens analyzed, I extracted the ones that occur multiple times in my data. These hyphenated compound adjectives were also checked in the OED dictionary (see Table 20 below).

1	**So-called** core / "bubble" economy / toxic assets / quantitative easing	43 tokens	Can be found in the OED
2	**Mortgage-backed** securities / financial products / paper	20 tokens	Cannot be found in the OED
3	**Low-cost** computers / countries / gear / loans / approach / airlines	18 tokens	Can be found
4	**Private-equity** chiefs / firm / people / fund	16 tokens	Cannot be found
5	**High-definition** television sets / internet content	15 tokens	Can be found
6	**20-city** index	14 tokens	Cannot be found
7	**Non-executive**	12 tokens	Can be found
8	**Old-fashioned**	11 tokens	Can be found
9	**Fuel-efficient**	10 tokens	Can be found

10	**Low-carbon**	9 tokens	Can be found
11	**Blue-chip**	9 tokens	Can be found
12	**State-backed**	8 tokens	Cannot be found
13	**Three-day** week	8 tokens	Cannot be found
14	**Double-digit**	7 tokens	Cannot be found
15	**Non-financial**	7 tokens	Cannot be found

Table 19. *The most frequently used hyphenated compounds in the data*

Based on the results from the Table 19, only 8 out of 15 most frequently used hyphenated adjectival compounds are reflected in the OED dictionary. Moreover, they can only be found in the "Extended use" section that gives examples of their use as hyphenated adjectival compounds. It means that hyphenated adjectival compounds in business news reporting cannot always be regarded as well-established compounds. It proves the fact that hyphenated words are frequently created on the spot to avoid ambiguity and make the article more vivid.

CONCLUSION

In the dissertation, the following research questions were addressed:

- To what extent are hyphenated adjectival compounds (before head nouns) used in a corpus of Business News Reporting?

- How can the hyphenated adjectival compound be characterized in terms of structure and meaning?

- To what extent can the hyphenated adjectival compounds focused on in this study be regarded as well-established compounds?

My investigation was based on hyphenated words in business news reporting. To do this, 1367 tokens were extracted from the reduced version of the BENews corpus (500,000 words) compiled by Goossens (2014). The biggest groups of tokens under study were categorized according to (1) their internal structure based on Biber et al.'s (1999) adjectival compound patters, (2) the semantic fields they belong to. Afterwards, the most frequently occurring adjectival compounds were checked in the online version of the Oxford English Dictionary in order to determine if they could be labelled as well-established compounds.

The first question was addressed in the Section 4.1. *Internal structure of the adjectival compounds in the corpus.* The major adjectival compound patterns found in the data were extracted. Based on this section, it can be seen that adjectival compounds are frequently used in business news reporting, as they provide an efficient way of compressing information. In speech, relative clauses are frequently used, and in news it is not always relevant, this is why "such constructions (i.e. compounds) can be used to compress information into a two-word expression, which is typically integrated attributively within a noun phrase" (Biber et al., 1999: 536). It is obvious, that relative clauses can be easier to use, but compounds help to avoid long phrases that convey the same information.

The compounds that can be most frequently seen in the data are adjectival compounds with a past participle as the second element (30.43 %). **416** tokens out of 1,367 have a past participle as the second element. Biber et al. (1999) also points out that compounds formed with an *ed*-participle are very common in news. Out of the 416 tokens with a past participle as

the second element, the biggest pattern is *"noun + ed + head noun"* (72.11 %). Compressed adjectival compounds make only 3.65 % of the data under investigation, but are a very interesting group to analyse. They might not occur in the specialized articles, but they are fundamental in news reporting for general public or in academic writing. Compressed phrasal expressions are extremely economical, as they comprise 3 and more words, and they are highly understandable, allow for faster reading and add individuality to the article.

In the Section 4.2. *Semantic fields of the adjectival compounds,* the hyphenated adjectives under investigation were divided into several **semantic fields: (1)** adjectival compounds including *'-based'* that describe companies / organisations, **(2)** adjectival compounds denoting periods of time, duration and age, **(3)** adjectival compounds denoting ethnicity, cultural and geographical affiliation, **(4)** adjectival compounds including *'so-called'*.

It is clear from the section 4.2., that adjectival compounds in business news reporting are often used to describe location, duration, age and the origins of a business, firm, market, bank, etc. All the semantic groups analysed are interconnected, and it can be seen that adjectival compounds in these fields also help to avoid ambiguity and long descriptive phrases.

In the Section 4.3. *Well-established adjectival compounds*, the third research question was addressed. I limited the investigation to the most frequently used types of compounds in the data. Afterwards, I checked the inclusion of these compounds in the online version of the OED dictionary (Oxford English Dictionary). As it was discussed above, adjectival compounds are often used to describe location, age, etc. Such compounds are created "on the spot" to convey information in a concise way. This is why such adjectival compounds cannot be found in the OED. Moreover, compound words that are clearly used in specialized sources of business news reporting are not reflected in the dictionary either, as they are used only in business vocabulary. A lot of other words that are frequently used not only in news, but also in the everyday life, are reflected in the OED and can be called well-established adjectival compounds.

It is noteworthy, that there are no strict rules for hyphenation and each style guide proposes its own rules to follow to write a good article. This is why the same compounds can sometimes be written separately or without a hyphen in different sources. This also means

that compounds are easy to create, they facilitate indeed the writing of a business news report, and avoid long phrases with repetitions.

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