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A multimodal discourse analysis of textual cohesion in tertiary marketing texts written by international undergraduate students

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Constellations of cohesive features in business discourse are important to the maintenance of style and thread texts. Multimodal discourse analysis (MDA) of the use of cohesive devices in disciplinary discourses provides a detailed description of the salient textual aspects and the intrasemiotic (within a single semiotic mode) and the intersemiotic (across different semiotic modes) logical relations in the multimodal semiotic resources. Investigations of multimodality aim to develop theories, analytical tools, and describe and interpret the multiple representation and communication across different semiotic modes (Adami, 2016). Much of the populous text-based research in tertiary contexts has been confined to mathematics (de Oliveira & Cheng, 2011; Guo, 2004; O'Halloran, 1996, 1999a, 1999b, 2000, 2004, 2005, 2008a, 2009), science and computing (AlHuthali, 2007; Alshammari, 2011; Drury, O'Carroll, & Langrish, 2006; Jones, 2006), nursing (Okawa, 2008), and business studies (Wake, 2006).

Applications of Systemic Functional Linguistics (SFL) in the study of tertiary multimodal business discourse are limited to a few studies (Alyousef, 2013, 2014, 2015a, 2015b, 2015c; Alyousef & Alnasser, 2015a, 2015b; Alyousef & Alsharif, 2016; Alyousef & Mickan, 2016; Alyousef & Picard, 2011; Wake, 2006). For example, Alyousef & Alnasser's (2015a, 2015b) employed Halliday and Hasan's (1976) scheme to explore the use of cohesive devices in international postgraduate students' multimodal finance and management accounting texts. Lexical cohesion was the most frequently used cohesive device in the two studies, and in particular repetition of the same lexical items, followed by reference. Along similar lines, Fazelimanie (2007), and Nga (2012) found that lexical cohesion was the most frequent cohesive device in business discourse. Johns (1980) suggests further studies of English for the Business and Economics (EBE) discourse modes and features. Discourse-based studies of marketing have been confined workplace contexts (Ardley & Quinn, 2014; Bargiela-Chiappini, 2009; Copley, 2010; Fitchett & Caruana, 2015; Thomas, 1997), and in particular advertising and marketing research (Oakes & Oakes, 2012). Although marketing plan texts are one of the most commonly used genres in marketing, there is a lack of text-based investigations that explore and analyse the use of cohesive devices in these texts. Such research could shed light on the practices and discourses which constitute well constructed cohesive marketing texts.

This paper reports on a study designed to investigate the use of cohesive devices and the logical relations within the multimodal semiotic resources of marketing plan texts, a key topic in the *Integrated Marketing Topics* course. The corpus was composed of two data sets (20,613 words): three international students' individual assignments (13,664 words) and a tutor two model marketing plans (6,949 words). The three EFL students were enrolled in a Business of Management (Marketing) undergraduate program: Nura, Hind, and Zohoy. These students were identified as appropriate for the present study because "the largest number of international ESL students in Australia

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and elsewhere are clustered in business and commerce subjects” (Alyousef & Picard, 2011, p. 464).

As the texts encompassed multimodal tables and graphs, I adopted O’Halloran’s (2008b, 2009; 2011) nomenclature Systemic Functional Multimodal Discourse Analysis (SF-MDA) to investigate the way participants make meaning and, thereby, produce well-organised texts through the use of cohesive devices. The SF-MDA of cohesive devices is framed by Halliday & Hasan (1976) and Halliday’s (2014) cohesion analysis schemes and Martinec and Salway’s (2005) system for the MDA of the logico–semantic relations between the multimodal semiotic resources and the texts accompanying them. These tools seem to be suitable for the purpose of this study because they reveal the textual and the logical configurations made at the intersection of tables and graphs and the written texts. Types of cohesive devices and their sub-components were identified and annotated in order to calculate the frequency of occurrence of each type per 100 words in each of the five texts. The use of numerical/quantitative data in this qualitative research aims to make statements such as "more," "most," and "equal" more precise. To achieve reliability in annotating the cohesive devices, two reliability procedures were followed: by iteratively cross-checking the annotation codes and by revising the annotations with a fellow linguist.

Next I present the findings and the discussion of the main findings.

Results and discussion

The students were required to engage in workplace practices by developing a business marketing plan to show their understanding of marketing, their ability to comprehensively analyse their environment, and their creative marketing oriented solutions and written communications. The terms marketing plan and market planning (and more generally business planning) are used interchangeably to refer to “a technology, a set of techniques and activities, that assists an organization in achieving an appropriate alignment of external environment and internal capabilities in order to achieve a desired outcome” (Pulendran, Speed, & Widing, 2003, p. 478). So businesses need marketing plan since it details the analysis, ideas, and plans, linked to what one wants to do with the company. It also communicates the substance of the marketing effort (and the professionalism of its author) to other areas of the organisation.

The findings of the SF-MDA of cohesion in Table 1 show and compare the commonly used cohesive devices in the two data sets: 29.38 cohesive devices per 100 words in the students texts, compared with 21.35 in the tutor’s. Lexical cohesion was the first most frequently occurring cohesive type in the students’ texts (14.09 cohesive devices per 100 words), and in particular reiteration of the same lexical items (10.23 cohesive devices per 100 words). The first most frequently occurring cohesive type in tutor’s texts was reference, followed by lexical cohesion (respectively, 8.42 and 7.05 devices per 100 words). It is however, hard to make generalisations since the differences in the relative frequency between the students’ and the tutors’ texts may be ascribed to the general discourse competence of the students, as they overused lexical reiteration (10.23 devices per 100 words) compared to the tutor’s use (3.74 devices per 100 words). This finding supports a number of studies which found that ESL/EAL students (Abusharkh, 2012; Alyousef & Alnasser, 2015a, 2015b; Fazelimanie, 2007;

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Hinkel, 2001; Johns, 1980; Kamal, 1995; Khalil, 1989; Liu & Braine, 2005; Mohamed-Sayidina, 2010; Mohamed & Omer, 2000) and professional business texts (Moncayo, 2002, 2005) extensively use reiteration to convey the interrelationships among ideas, direct the attention of reader/listener, and show the relative *foregrounding* and *backgrounding*. For example, Alyousef & Alnasser (2015a, 2015b) investigated cohesion in tertiary management accounting and finance texts and found that lexical cohesion formed the largest percentage of use, and in particular reiteration of the same lexical items in the tables and the graphs. Along similar lines, Johns' (1980) investigation of written business discourse revealed that lexical cohesion was the most frequently occurring cohesive type (79%), while reference was the second most common category (14%).

Reference was the first most common category in the tutor's texts and the second most common category in the students (respectively, 8.42 and 10.61 cohesive devices per 100 words), and in particular the definite article 'the', which is used as a signal of a specific identity; or rather, of identifiability, as shown in Table 1. All the participants employed the first person plural pronoun 'we' to connect with their readers and to maintain their attentiveness by engaging them in the argument. For example, Zohoy excessively employed personal pronouns (1.56 per 100 words), and in particular the plural pronoun 'we', which was used 83 times: "We [**R: Pro.**] will increase our [**R: Poss.**] price in period 6 from \$20,199 to \$20,899"/ "we [**R: Pro.**] need to increase the price to cover the production cost". Nura used the personal pronouns 'I', 'we', 'they', and 'it': "I [**R: Pro.**] think the competitor is going to develop its [**R: Poss.**] vehicle technology capability". In addition, all the participants employed possessive pronouns (e.g. our, their) to make anaphoric semantic connections to previously introduced nominals. This linguistic resource makes a text more cohesive through the achieved semantic unity. Whereas the other personals require only one referent for their interpretation, possessive pronouns demand two, recognisable participant (a person or object), called a possessor, and a possessed (Halliday & Hasan, 1976). The use of this reference item creates a sense of belonging or ownership. The students used more comparative reference elements (<1.52 items per 100 words) than did the tutor (< 0.72 words per 100 words): e.g. lower, bigger, smaller, better, stronger, higher, larger, greater, different, fewer, more, less, other, and another. These reference items are used to set up a relation of contrast between two entities. This reflects the students' zeal towards their company. All the five texts employed the cataphoric reference items 'colon', 'below' and 'above' to refer readers to a following text, table, or graph. The anaphoric and cataphoric reference items 'above' and 'below' were used in the five marketing plan texts to refer readers, respectively, to what has gone before or to what is to come. The visual marker colon was highly employed to refer readers to a following text. Anaphoric reference, however, was minimally used in the five texts. Anaphoric reference provides cohesion within a text because the reference links with already established proposition(s).

The use of conjunctives was almost equal (3.50 and 3.58 cohesive devices per 100 words) in the two data sets, and they constituted the third most common category. Conjunctives are "cohesive not in themselves but indirectly, by virtue of their specific meanings; they are not primarily devices for reaching out into the preceding (or

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following) text, but they express certain meanings” (Halliday & Hasan, 1976, p. 226). Conjunctions were primarily used to signal extension (1.86 devices per 100 words) and enhancement (.85 devices per 100 words) relationships. The additive conjunctive elements had the highest frequency in the two data sets (1.54 and 1.43 additive elements per 100 words), compared with the other sub-types of elaboration and enhancement, whose occurrences were below .90 devices per 100 words. Extension devices are typically used to provide further related information or to establish counterclaims (e.g. and, also, furthermore, but, however). Extension devices add or vary a clause message

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Table 1. The SF-MDA of cohesive ties and the parentages per 100 words in the two data sets: the students' texts and the tutor two model texts

Category	Sub-category	Type of tie	Students								Tutor						Sub-total	
			Nura (5,419 words)		Hind (3,023 words)		Zohoy (5,222 words)		Total (13,664 words)		Text 1 (2,641 words)		Text 2 (4,308 words)		Total (6,949 words)		(20,613 words)	
			Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Conjunctives	Elaboration	Appositive	21	.39%	15	.50%	7	.13%	43	.31%	12	.45%	40	.93%	52	.76%	95	.46%
		Clarification	6	.11%	0	0%	0	0%	6	.04%	3	.11%	11	.25%	14	.20%	20	.10%
	Extension	Additive	93	1.72%	34	1.13%	84	1.62%	211	1.54%	41	1.56%	58	1.34%	99	1.43%	310	1.51%
		Adversative	4	.07%	4	.13%	13	.25%	21	.15%	3	.11%	5	.12%	8	.11%	29	.14%
		Variation	6	.11%	1	.03%	17	.32%	24	.17%	7	.26%	13	.31%	20	.29%	44	.21%
	Enhancement	Temporal	6	.11%	3	.10%	3	.06%	12	.09%	6	.23%	4	.09%	10	.14%	22	.10%
		Manner/comparative	6	.11%	0	0%	20	.38%	26	.19%	5	.19%	2	.04%	7	.10%	33	.16%
		Causal	32	.59%	5	.16%	83	1.59%	120	.89%	16	.61%	15	.35%	31	.44%	151	.73%
Concessive/conditional		8	.15%	0	0%	8	.15%	16	.12%	3	.11%	5	.12%	8	.11%	24	.12%	
Total		182	3.36%	62	2.05%	235	4.50%	479	3.50%	96	3.63%	153	3.55%	249	3.58%	728	3.53%	
Lexical Cohesion	Substitution	28	.52%	21	.69%	39	.75%	88	.64%	11	.42%	25	.58%	36	.52%	124	.60%	
	Ellipsis	27	.50%	16	.53%	31	.59%	74	.54%	10	.37%	114	2.65%	124	1.78%	198	.96%	
	Total	55	1.02%	37	1.22%	70	1.34%	162	1.18%	21	.79%	139	3.23%	160	2.30%	322	1.56%	
Lexical Cohesion	Repetition	472	8.71%	340	11.25%	586	11.23%	1398	10.23%	171	6.48%	161	3.74%	332	4.78%	1730	8.40%	
	Synonym	11	.20%	20	.66%	8	.15%	40	.29%	12	.45%	3	.07%	15	.21%	55	.26%	
	Antonym	8	.15%	2	.06%	17	.32%	27	.20%	4	.15%	3	.07%	7	.10%	34	.16%	
	Hypernym	1	.02%	1	.03%	1	.02%	3	.02%	0	0%	4	.09%	4	.06%	7	.03%	
	Hyponym	27	.50%	35	1.17%	14	.27%	76	.56%	0	0%	44	1.02%	44	.63%	120	.58%	
	Meronym	75	1.38%	73	2.41%	234	4.48%	382	2.79%	0	0%	88	2.04%	88	1.27%	470	2.29%	
	Total	594	10.96%	471	15.58%	860	16.47%	1926	14.09%	187	7.08%	303	7.03%	490	7.05%	2416	11.72%	
Reference	Demonstrative	56	1.02%	23	.76%	42	.80%	121	.90%	30	1.13%	28	.65%	58	.84%	179	.88%	
	Definite	293	5.40%	211	6.98%	231	4.43%	735	5.38%	133	5.04%	187	4.35%	320	4.61%	1055	5.12%	
	Comparative	61	1.12%	46	1.52%	56	1.07%	144	1.05%	19	.72%	14	.32%	33	.47%	177	.86%	
	Pronouns	85	1.56%	17	.56%	112	2.15%	213	1.56%	22	.83%	26	.60%	48	.67%	261	1.26%	
	Possessive	75	1.38%	45	1.49%	45	.86%	165	1.21%	39	1.48%	22	.51%	61	.88%	226	1.09%	
	Anaphoric	3	.05%	6	.20%	6	.11%	15	.11%	4	.15%	0	0%	4	.06%	19	.09%	
	Cataphoric	10	.18%	22	.73%	22	.42%	54	.40%	19	.72%	42	.97%	61	.89%	115	.56%	
Total	583	10.73%	370	12.24%	514	9.84%	1447	10.61%	266	10.07%	319	7.40%	585	8.42%	2032	9.86%		
Sub-total		1414	26.08%	940	31.09%	1679	32.15%	4014	29.38%	570	21.01%	914	21.21%	1484	21.35%	5498	26.67%	

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at the pragmatic level. On the other hand, enhancement devices are used to provide reason (e.g. because, thus, so), to illustrate the manner in which an action takes place (e.g. as, though, although), and to order the sequential structure of events (e.g. first, second). All clause complexes in the five texts included instances of paratactic (coordinating) and hypotactic (subordinating) nexuses to extend the propositions. Whereas the clauses in a paratactic clause have equal status, they have unequal status in a hypotactic complex. For example, the secondary clause “and our current market share” in Nura’s text extends meaning since it followed the primary clause. The secondary clause typically follows the primary in a paratactic expansion. The paratactic nexus ‘and’ is used to link two equally important ideas. The secondary dependent clause in a hypotactic relation either precedes or follows the dominant one. For example, the dependent clause “but low vehicle features” in Nura’s text follows the primary clause, whereas the dependent clause “as the environment is ever-changing” in Zohoy’s text precedes the primary one.

The **[R: Def.]** total sales **[L: Rep.]** were \$39,547,000 in the **[R: Def.]** last 5 years, and **[C: Extension: Add.]** our **[R: Poss.]** current market share is 64.3%. - The **[R: Def.]** competitor in the **[R: Def.]** market has lower **[R: Comp.]** price **[L: Rep.]** of \$11,293, but **[C: Extension: Variat.]** low vehicle features compared to Alec.(Nura’s Text)

Moreover, **[C: Extension: Add.]** we **[R: Pro.]** aim to attract attention and **[C: Extension: Add.]** build awareness about our **[R: Poss.]** brands by understanding consumers’ **[L: Rep.]** wants and needs, and **[C: Extension: Add.]** then **[C: Enhancement: Temp.]** the **[R: Def.]** company **[L: Syn.]** can research and develop our **[R: Poss.]** product to increase the **[R: Def.]** customer satisfaction. (Hind’s Text)

As **[C: Enhancement: Caus.]** the **[R: Def.]** environment is ever-changing and **[C: Extension: Add.]** we **[R: Pro.]** could not control the **[R: Def.]** factors happen in the **[R: Def.]** external environment, we **[R: Pro.]** not only **[C: Extension: Variat.]** need to track the **[R: Def.]** internal performance of our **[R: Poss.]** company but **[C: Extension: Variat.]** also **[C: Extension: Add.]** consider to do research every period to track the **[R: Def.]** actions taken from competitors and the **[R: Def.]** preferences of consumers.- On the other hand, **[C: Extension: Variat.]** 3T segment preferred the **[R: Def.]** Size **[L: Rep.]** range from 85 to 100. (Zohoy’s Text)

They **[R: Pro.]** are also **[C: Extension: Add.]** interested in extending their **[R: Poss.]** product line as well as **[C: Extension: Add.]** adding new product lines. - Neuman and Russell, **[L: Rep.]** who have been friends since college, decided to develop and market a line of clothing with a unique—yet **[C: Extension: Variat.]** universal—appeal to outdoor enthusiasts. (Tutor’s Text 1)

This **[R: Dem.]** **[Subs.: Cl.]** gives Canterbury **[L: Rep.]** a larger **[R: Comp.]** target market as well as **[C: Extension: Add.]** being able to offer

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clients more **[R: Comp.]** services for their **[R: Poss.]** home upgrades.
(Tutor's Text 2)

Antithesis was mainly expressed by the variation devices 'but', 'on the other hand', and 'yet', which link to preceding proposition(s). The demonstrative 'this' in the tutor's Text 2 includes an elaborating relation since it was used to refer back to a proposition in the previous clause through the use of clausal substitution. Whereas enhancement expands the utterance by providing circumstantial details such as time, place, manner, cause or condition, elaboration devices expand an utterance by reformulating the message to provide focus on the content (e.g. more specifically, in fact), as in:

Other **[C: Elaboration: Appos.] [R: Comp.]** objectives **[L: Rep.]** include achieving 72% brand awareness in the **[R: Def.]** economy market in period 9.- Delite leader in the **[R: Def.]** 1E is that **[R: Dem.]** they **[R: Pro.]** are meeting consumer needs, especially **[C: Elaboration: Clari.]** in low **[L: Rep.]** vehicle price.- I **[R: Pro.]** decided not to adopt the **[R: Def.]** price **[L: Rep.]** reduction strategy because **[C: Enhancement: Caus.]** customer perception will change as **[C: Enhancement: Caus.]** we **[R: Pro.]** are better **[R: Comp.]** in quality and safety attributes.- Firstly, **[C: Enhancement: Temp.]** safety attribute are higher **[R: Comp.]** than the **[R: Def.]** competitor. (Nura's Text)

Customer segmentation helps to build a better **[R: Comp.]** understanding of our **[R: Poss.]** customer requirements and **[C: Extension: Add.]** thus **[C: Elaboration: Appos.]** reach their **[R: Poss.]** needs.- The **[R: Def.]** Amazing Company has a greatest research and development expend, at the **[R: Def.]** same **[Subs.: Cl.]** time as **[C: Enhancement: Caus.]** maintaining the **[R: Def.]** highest **[R: Comp.]** stock price and unit share. (Hind's Text)

There are several research tools **[L: Hyp.]** we **[R: Pro.]** could use, for example **[C: Elaboration: Appos.]** focus group **[L: Mer.]** to find out what customers think about us and Detonka.- The **[R: Def.]** price **[L: Rep.]** sensitivity **[L: Rep.]** makes us hard to increase our **[R: Poss.]** price **[L: Rep.]** dramatically therefore **[C: Enhancement: Caus.]** we **[R: Pro.]** will expect to have a low product contribution with relatively higher **[R: Comp.]** unit of sales (Zohoy's Text)

For instance, **[C: Elaboration: Appos.]** a Blue **[L: Rep.]** Sky **[L: Rep.]** T-shirt sells for \$15.99, compared with a competing high-performance T-shirt that **[R: Dem.]** sells for \$29.99.

In short, **[C: Elaboration: Clari.]** they **[R: Pro.]** like to "Go Play Outside." - With the **[R: Def.]** exception of the **[R: Def.]** fleece vests and jackets, Blue Sky's clothing **[L: Syn.]** is made of strictly the **[R: Def.]** highest quality cotton, so **[C: Enhancement: Caus.]** it **[R: Pro.]** may be worn both on the **[R: Def.]** hiking trail and around town.- First, **[C: Enhancement: Temp.]** consumers are participating in and investing in

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recreational activities that [R: Dem.] are near their [R: Poss.] homes. (Tutor's Text 1)

The [R: Def.] proprietors have experience in the [R: Def.] industry but [C: Extension: Variat.] need training or [C: Elaboration: Clari.] experience in managing staff.- • [Ellipsis: Cl.] increased [R: Rep.] interest in travelling and owning new cars rather than [C: Elaboration: Clari.] spending money on home improvements.
 • [Ellipsis: Cl.] rapidly growing market due to [C: Enhancement: Caus.] a preference by home owners towards renovation rather than [C: Elaboration: Clari.] relocation. (Tutor's Text 1)

Clarification devices deepen the context by refocusing the reader's attention to certain proposition(s). These devices were minimally employed by Nura and the tutor. Whereas the tutor was the only one to use the summative element 'in short' to summarise a preceding proposition, Nura used the element 'especially' to emphasise particular point. Appositive devices were minimally used in the five texts. The five texts expanded propositions through the use of causal conjunctive device 'because', 'as', 'therefore', 'so', 'due to', 'in order to', 'accordingly', and 'thus'. Only Nura and the tutor employed the temporal conjunctives (firstly, secondly, thirdly, etc) to signpost the sequential structure of their arguments.

Substitution and ellipsis rarely occurred in the five texts (1.18 and 2.30 devices per 100 words). A number of studies (Abusharkh, 2012; Al Jarf, 2001; Alyousef & Alnasser, 2015a, 2015b; Fazelimanie, 2007; Hessamy & Hamed, 2013; Hinkel, 2001; Johns, 1980; Khalil, 1989; Mohamed-Sayidina, 2010) converge with this finding, as they attribute the rare occurrence of these devices to the participants' limited knowledge. The tutor's use of substitution and ellipsis was almost two times the students (2.30 per 100 words vs. 1.18 per 100 words). This reflects his command in the use of these linguistic resources.

To sum up, lexical cohesion was overall the most extensively used category of cohesion in the two data sets (11.72 devices per 100 words), followed by reference (9.86 devices per 100 words) and conjunctives (3.53 devices per 100 words). This is not surprising since the five texts shared a common field. The results highlight the importance of lexical cohesion in constructing cohesive marketing plan texts. Next, I present the findings of the SF-MDA of cohesion in the tables and graphs.

Table 2 outlines the key statistics of the two data sets. This includes word count, and the number of tables and graphs.

Table 2. Key statistics of the three students' text and the tutor's two model texts

	The students' texts				The tutor's two model texts			Sub-total
	Nura	Hind	Zohoy	Total	Text 1	Text 2	Total	Students & Tutor
Text word count	4,866	2,414	4,353	11,633	2,372	3,893	6,265	17,898
Visuals word count	553	609	869	2,031	269	415	684	2,715
Word count	5,419	3,023	5,222	13,664	2,641	4,308	6,949	20,613
Number of tables	2	9	9	20	9	8	17	37

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Number of figures	3	1	2	6	2	3	5	11
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All the four participants used tables and graphs in the analyses of their products and to assist them in making appropriate decisions. The use of these semiotic resources was almost equal in the two data sets. The three students presented 20 tables and 6 figures, while the tutor used 17 tables and 5 figures. The five texts encompassed 37 tables and 11 graphs. These semiotic visual modes achieve a number of functions in marketing discourse, as presented next.

The frequency of lexical cohesive devices was higher in the tables and the graphs than in the written texts. This is mainly attributed to the abundance of lexical ties and the paradigmatic and syntagmatic sense relations in these semiotic resources. Paradigmatic (vertical) relations are those between an element and what could have occurred in place of it, while syntagmatic (horizontal) relations are those between an element and what it goes together with. Accounting tables extensively employ structural condensation to encode meanings in the most economical manner. For example, the SF-MDA of cohesion in Hind's past sales revenues table (Table 3) revealed the high use of lexical reiterations and the sense relations of meronymy, hyponymy and hypernymy. The table included 61 instances of lexical reiterations: 4 instances of the word 'period', 1 instance of the word 'tax'. In addition, the interpretation (or reading path) of the horizontal cells for periods 2-5 revealed that each component is implicitly reiterated 4 times in order to facilitate comparability. This finding is in line with Alyousef and Alnasser's (2015a, 2015b) two studies of cohesion in tertiary management accounting and finance texts, which indicated that lexical cohesion formed the largest percentage of use, and in particular reiteration of the same lexical items in the tables and the graphs.

Table 3. Hind's past sales revenues table

Company wide	Period 1	Period 2 [L: Rep.]	Period 3 [L: Rep.]	Period 4 [L: Rep.]	Period 5 [L: Rep.]
Sale [L: Rep.] (4 instances) [L: Mer.] (5 instances)	20,516	20,012	21,480	22,525	24,236
COGS [L: Rep.] (4 instances)	14,640	14,333	15,648	16,512	17,881
Gross Margin [L: Rep.] (4 instances) [L: Hyp.] (5 instances)	5,877	5,679	5,832	6,013	6,355
Marketing [L: Rep.] (4 instances)	378	388	388	408	418
Research and Development [L: Rep.] (4 instances)	348	561	277	1,686	698
General and Admin [L: Rep.] (4 instances)	867	864	909	949	1,008
Manufacturing [L: Rep.] (4 instances)	292	864	495	577	683
Depreciation [L: Rep.] (4 instances)	898	898	898	927	940
Income From Operation [L: Rep.] (4 instances) [L: Hyp.] (5 instances)	3,094	2,572	2,865	1,466	2,609

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Extraordinary [L: Rep.] (4 instances) [L: Mer.] (5 instances)	0		0		-245		-329		-523	
Interest Income/Expense [L: Rep.] (4 instances)	-345		-282		-43		0		0	
Net Income [L: Rep.] (4 instances) [L: Hyp.] (5 instances)		2,749		2,290		2,577		1,136		2,125
Tax [L: Rep.] (4 instances)	959		801		902		398		744	
Income After Tax [L: Rep.] (5 instances) [L: Hyp.] (5 instances)		1,790		1,488		1,675		739		1,382

The paradigmatic and syntagmatic sense relations of meronymy, hyponyms, and hypernyms construct lexical cohesive ties between noun phrases and numeracy. The four noun phrases ‘Gross Margin’, ‘income from operation’, ‘net income’, and ‘income after tax’ in grid one and their respective numerate values (Grids 3, 5, 7, 9, and 11) are hyponyms of the hypernym ‘sales revenues’. In other words, ‘sales revenue’ is a hypernym of the four noun phrases and their respective numerate values in grids 3, 5, 7, 9, and 11, which are in turn hyponyms of their sub-components and their respective numerate values (Grids 2, 4, 6, 8, and 10). The sub-components of each of these phrases and their respective numerate values (Grids 2, 4, 6, 8, and 10) are meronyms (part of) of their hyponyms. For example, subtracting the numerical value for Gross Margin, 5,877, from the sum of the following five sub-components, 2,783, yields Income from Operation, 3,094. These values encompass lexical relationships of meronymy (through left to right and top-down) and hypernymy and hyponymy (through right to left and bottom-up). Taxonomic classifications contributed to the texts’ cohesiveness through left-to-right syntagmatic and top-down paradigmatic relations, as in orthographic texts, but also through bottom-up and right-to-left relations. This emphasises the importance of lexical cohesion in constructing cohesive well-formed accounting tables in a marketing plan discourse that consists of hierarchical lexical strings.

Similarly, Nura’s past sales revenues figure (Figure 1) included instances of lexical cohesion. The SF-MDA revealed 4 reiterations of the word ‘period’, which is in turn a meronym of the hyponym ‘revenues’.

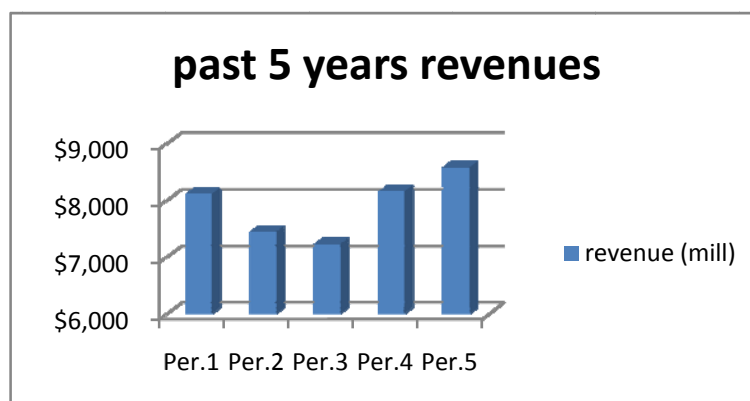


Figure 1. Nura’s past sales revenues figure

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The figure included 5 meronymic relations. The 5 bars function intrasemiotically (within the graph) to make meaning. The lexical relations in the graph do not only function intrasemiotically but also intersemiotically through the interaction of the graph and the accompanying text. Below is an SF-MDA of Nura's comments on Figure 1.

The graph shows high revenue in period 1, which then decreased in the following two periods. No action was taken to the product in periods 2 and 3. In period 4 and 5, the revenue increased *which is a good predictor which is that Alec is performing well due to the changes and actions that were taken in periods 4 and 5*. The total sales from period 1 to 5 were \$39,547 million. The change in total sales from period 1 to 5 was \$4,670 million.

The figure prompted Nura in drawing conclusions in the orthographic text: e.g. in period 4 and 5 "revenue increased which is a good predictor that Alec is performing well ... in periods 4 and 5". Nura expresses her authorial interpersonal stance arguing that the increase is 'a good predictor'. This reflects her confident viewpoint, which in turn assisted her in drawing a conclusion. The graph and the accompanying text include two intersemiotic logical relations. The first one, elaboration, refers to the case where one mode (the text) clarifies the other (the graph): "the graph shows ... increased ... The total sales ...". Here the same participants, processes and circumstances are depicted and referred to. The second relation is that of enhancement, as the graph aided Nura in arriving at new related information that is qualified circumstantially by the propositional clause: "due to the changes and actions that were taken in periods 4 and 5". This clause provides reason (or purpose) for Nura's viewpoint. Image-text enhancement relation provides related temporal (when, how), spatial (where) or causal (why) information.

Similarly, two intersemiotic logico-semantic relations were found in Nura's four year projections' calculations (Table 4) and the accompanying text: elaboration and enhancement. In other words, the table helped Nura in drawing conclusions. Tables/figures-text relations in marketing include both enhancing and elaborating intersemiotic relations. The SF-MDA of cohesion (Table 4) shows the high use of lexical reiterations and the paradigmatic and syntagmatic sense relations. The table included 25 instances of lexical reiterations, as the reading path of the table indicate that each term in column 1 is implicitly reiterated in period 6-9. For example, "sales" in the first column is reiterated in the ensuing period: "*sales for period 5 will be \$8,585,000,000. Sales for period 6 will be \$9,014,250,000*" and so forth. Therefore, each lexical accounting term in column 1 function intrasemiotically with the numerical values in the other columns to make meaning.

Table 4. Nura's four year projections for Amazing Cars Alec Company

Column1	period 5	period 6	period 7	period 8	period 9
Sales [L: Mer.] (5 instances)	\$8,585,000,000	\$9,014,250,000	\$9,464,962,500	\$9,938,210,625	\$10,435,121,156
COGS (5 instances)	\$6,334,000,000	\$6,524,000,000	\$2,442,000,000	\$2,442,000,000	\$2,442,000,000

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Margin [L: Hyp.] (5 instances)	\$2,251,000,000	\$2,490,250,000	\$7,022,962,500	\$7,496,210,625	\$7,993,121,156
Expenses [L: Hyp.] (5 instances)					
Marketing [L: Mer.] (5 instances)	\$95,000,000	\$145,000,000	\$145,000,000	\$145,000,000	\$145,000,000
R&D [L: Mer.] (5 instances)	\$1,392,000,000	\$1,392,000,000	-	-	-
General & administrative [L: Mer.] (5 instances)	\$988,000,000	\$988,000,000	\$988,000,000	\$988,000,000	\$988,000,000
Overhead [L: Mer.] (5 instances)	\$639,000,000	\$639,000,000	\$639,000,000	\$639,000,000	\$639,000,000
Depreciation [L: Mer.] (5 instances)	\$639,000,000	\$639,000,000	\$639,000,000	\$639,000,000	\$639,000,000
[L: Hyp.] (5 instances)	\$3,753,000,000	\$3,803,000,000	\$2,411,000,000	\$2,411,000,000	\$2,411,000,000
Income from operation [L: Hyper.] (5 instances)	\$6,004,000,000	\$6,293,250,000	\$9,433,962,500	\$9,907,210,625	\$10,404,121,156

The term 'Sales' is a meronym of 'Margin', which is in turn a hyponym of the hypernym 'Income from operation'. Similarly, the five terms 'Marketing', 'R & D', 'General & administrative', 'Overhead', and 'Depreciation' in grid one and their respective numerate values (grids 2-6) are meronym of 'Expenses', which in turn is a hyponym of the hypernym 'Income from operation'.

The lexical relations in Table 4, however, do not only function intrasemiotically but also intersemiotically through the interaction of the table and the accompanying text shown below.

In table 1 financial data, our margin is increasing in the next 4 years, *reflect efficient operations and management*. The expenses are lower than forecasted sales revenues for coming periods, which reflect increase in our income from operation. The most obvious change between periods 5 to 9 is the \$1,850,121,156 increase in sales. The COGS increase in period 6 by \$190,000,000. In the coming periods 7, 8, and 9 the COGS decrease by \$4,082,000,000. The income increases in the next years, *the most obvious cause of that increase is lowering operating expenses. With the advent of more focusing on upgrading Alec technology capabilities especially hot buttons safety and quality to the customers in the market, it is expected that the increase in profits and market share will continue for the next 4 years.*

The textual relations in the tutor's Text 2 are represented in Table 5 by meronyms, hyponyms, and cataphora. All the components of costs are meronyms of the hyponyms "possible direct/renovation costs for the [R: Def.] first year [L: Hyp.]", 'subtotal', and 'total'.

Table 5. The tutor's possible direct/renovation costs for the first year, Text 2

Subcontractors [L: Mer.]	\$103,300
Materials [L: Mer.]	\$84,300
Wages [L: Mer.]	\$50,400

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Work Cover [L: Mer.]	
Group tax/payroll tax [L: Mer.]	
Maintenance and repairs [L: Mer.]	
Waste disposal [L: Mer.]	
Commissions [L: Mer.]	
Royalties [L: Mer.]	
Freight [L: Mer.]	\$12,000
Subtotal: [R: Cat.] [L: Hyp.]	
Total: [R: Cat.][L: Hyp.]	\$250,000

The tutor excessively used cataphoric reference in Text 2 (.97 items per 100 words) in the tables and the orthographic text. For example, colons were used 40 times in Text 2.

Nura, Zohoy, and the tutor skilfully employed clausal ellipsis by availing from the powerful means of the two *rejoinders* (Martin, 2001) ‘bullet points’ and ‘numbered lists’ to encode structural information in the most economical manner. This technique is used to avoid repetition (or redundancy) of the same or very similar constituents so that the text does not seem dull. Their texts were to the point as only key features of an aspect were presented, thereby allowing for all these features to be understood. Nura and Zohoy used these resources to list down, respectively, the marketing and product objectives for Alec and customer groups.

The marketing and product objectives for Alec next 4 years are:

- Continuing to focus on consumer research.
- Aim to increase market share ...
- Increase Alec technology capability ...
- Increase net margins ...
- Increase contribution margin ...
- To achieve 72% brand awareness in the economy market ...
- Increase inventory days ... (Nura’s text)

Currently, Efficient Motors vehicles are being purchased by many customer groups; these predominately include:

- Families (2F) and high income earners (4F) ...
- Singles (3U) and enterprisers (5U) ...
- Singles (3T) and value seekers (1T) ... (Zohoy’s text)

The clause “marketing and product objectives for Alec” is implicitly reiterated seven times. Bullet points are used to grammatically elide information that is known or at least recoverable by the reader. Ellison is, hence, a form of presupposition. The tutor used bullet points in Text 1 for the subheadings and a numbered list to present his marketing plan goals. This finding is in line with Nathan’s (2013) genre-based study of a corpus of 53 marketing and marketing management case reports written by native and non-native postgraduate students at a UK university. Bullet points and numbered lists could make recall easier and, in turn, “facilitate the transition from prescription to action”(Chiapello & Fairclough, 2002, p. 198). In fact, the students were urged in

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the task sheet to use these resources “for succinctness and emphasis (not as the main communication style)”.

- *Financial Goals*
 1. Obtain financing to expand manufacturing capabilities, increase distribution, and introduce two new product lines.
 2. Increase revenues by at least 50 percent each year.
Donate at least \$25,000 a year to conservation organizations.
(Tutor’s 1st Text)

The tutor also employed bullet points in order to list the assumptions through which the plan was based on, objectives, and the recommendations, which included strengths, weaknesses, opportunities, and threats (SWOT) of Canterbury Renovations Company.

Canterbury Renovations have a number of marketing strengths:

- technical competence of the proprietors
- dedication of the staff
- total agreement between proprietors on their objectives
- financial resources
- good network of contacts for potential clients, suppliers and tradespersons
- ability to respond to the needs of the market
- business is located within the target market. (Tutor’s Text 2)

Also the tutor listed key issues from SWOT analysis and the main findings of competitor analysis. The tutor also used this resource to present aspects related to marketing strengths, improvements, ways for overcoming threats, and the main competitors, as shown below.

2- *Canterbury Renovations* has identified areas where improvements are required, including:

- lack of management skills
- small size of showroom premises
- no track record in business
- no current plan for management succession in the short term
- inefficient equipment
- lack of research and development facilities
- proprietors have limited security with which to raise finance for future growth and development
- business is principally dependent on one person during the formative stages. (Tutor’s Text 2)

Ellipsis is used in marketing plan texts as a means to avoid redundancy. In the next section I present the conclusion and the implications.

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Conclusion and implications

The study employed an SF-MDA of cohesion in order to investigate the use of cohesive devices in two multimodal data sets (20,613 words) that encompassed three students' texts and a tutor's two model texts on a key topic in a marketing course, namely marketing plan. The results indicated that marketing plan texts intertwine various cohesive patterns. The findings showed that lexical cohesion was the most extensively used category of cohesion in the two data sets, followed by reference and conjunctives. This is not surprising since the five texts shared a common field. The results highlight the importance of lexical cohesion in constructing cohesive marketing plan texts.

The SF-MDA of cohesion in the multimodal semiotic resources revealed that taxonomic classifications of synonyms, hyponyms, hypernyms, meronyms, and antonyms contribute to the organisation of marketing discourse. These lexical sense relations construct hierarchical lexical strings in the accounting tables and graphs. They also contribute to the cohesiveness of the multimodal marketing texts' through left to right syntagmatic and top-down paradigmatic relations, as in orthographic texts, but also through bottom-up and right-to-left relations. The multimodal semiotic resources extensively employ structural condensation through implicit lexical reiterations and the paradigmatic and syntagmatic sense relations of meronymy, hyponymy and hypernymy, which encode meanings in the most economical manner. All the five texts employed the anaphoric and cataphoric reference items 'above' and 'below' to refer readers, respectively, to what has gone before or to what is to come. The use of conjunctives in the two data sets was almost equal, and they were primarily used to signal extension and enhancement relationships. Substitution and ellipsis rarely occurred in the five texts. This highlights the importance of these cohesive devices in marketing plan texts. Marketing plan tables aid in making further explanations (elaborating) in the text surrounding them and in taking decisions by presenting viewpoints that assist in drawing conclusions (enhancing). In addition, the use of the *rejoinders* bullet points and numbered lists is a key feature of marketing plan reports, as they not only encode structural information in the most economical manner, but also facilitate recall and the transition from prescription to action. They compress information in a neat and concise way.

This discourse-based study adds to our stock of knowledge as it is the first to analyse the use of cohesive devices in tertiary marketing discourse. Student's learning and their understanding of the meaning making resources in marketing can be improved when the writing processes are made explicit. A number of pedagogical implications for English for Business Purposes (EBP) students and educators can be suggested as an outcome of this research study. Initially, EBP tutors can implement exercises requiring students to extract the cohesive devices from business texts written by native speakers, and to expand the meaning making potential in tables and graphs. These exercises can help students develop their analytical skills. Then, tutors can provide students with opportunities to practice the most common cohesive features of marketing plans. For example, they can help students understand how propositions are expanded through the introduction of these devices in EBP courses. For example, students can be encouraged to use the different types of lexical cohesion other than lexical reiteration, namely synonyms, antonyms, hyponymy, hypernymy,

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and meronymy. Similarly, EBP learners can be introduced into the uses of substitution and ellipsis in marketing discourse, in particular the use of ellipsis as a means to avoid redundancy through the use of bullet points and numbered lists. Instead of employing lexical reiteration throughout a text, students can be introduced into the most common synonyms and antonyms that frequently appear in marketing texts. The use of these cohesive devices makes a text more elegant and pleasant to read.

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