CHAPTER FIVE

ANALYSIS AND DISCUSSIONS

5.1 INTRODUCTION

This chapter presents the result of the study and discusses the findings. The chapter aims to answer the research questions, which are.

1. What is the level of CSR disclosure in the annual reports of Jordanian companies?
2. Is there a significant difference in CSR disclosure levels during the pre and post corporate governance code in Jordan?
3. Is there a difference in CSR disclosure levels between the first and second market?
4. Is there a significant relationship between corporate governance mechanisms and the level of CSR disclosure in Jordanian companies?
5. Do board diversity characteristics such as independence, age, gender, and nationality of directors influence the reporting of CSR in Jordanian companies?
6. What is the role of board size as moderating variable on the relationship between board diversity and corporate governance with CSR disclosure?

This chapter is organised as follows. The first section provides descriptive statistics for the dependent and independent variables. The second section presents the multivariate result for the main and moderating models. In addition, the section reports the results of additional analyses. The third section discusses the result of testing the hypotheses developed in chapter 3, and the last section concludes with a summary.

5.2 DESCRIPTIVE STATISTICS OF CSR (TOTAL NUMBER OF SENTENCES)

5.2.1 Descriptive Statistics of CSR Level over Years

Descriptive statistics refer to the transformation of raw data into a form that will make them easy to understand and interpret. This analysis is provided by frequency distribution, minimum, maximum, mean, and standard deviation that provide clear meaning to the data. Table 5.1 provides descriptive statistics for CSR disclosure levels over four years, 2007, 2008, 2010 and 2011. The average level of CSR measured by the numbers of sentences over the four years is approximately 76.38 sentences, which is calculated by total number of sentences related to each company and added together to get the aggregate number of sentences for all companies, and then divided by number of observations(468 observations). This average suggests a high level of CSR compared with the study of Ismail and Ibrahim (2008) which indicated the average number of sentences in Jordanian companies as 22 in 2006.

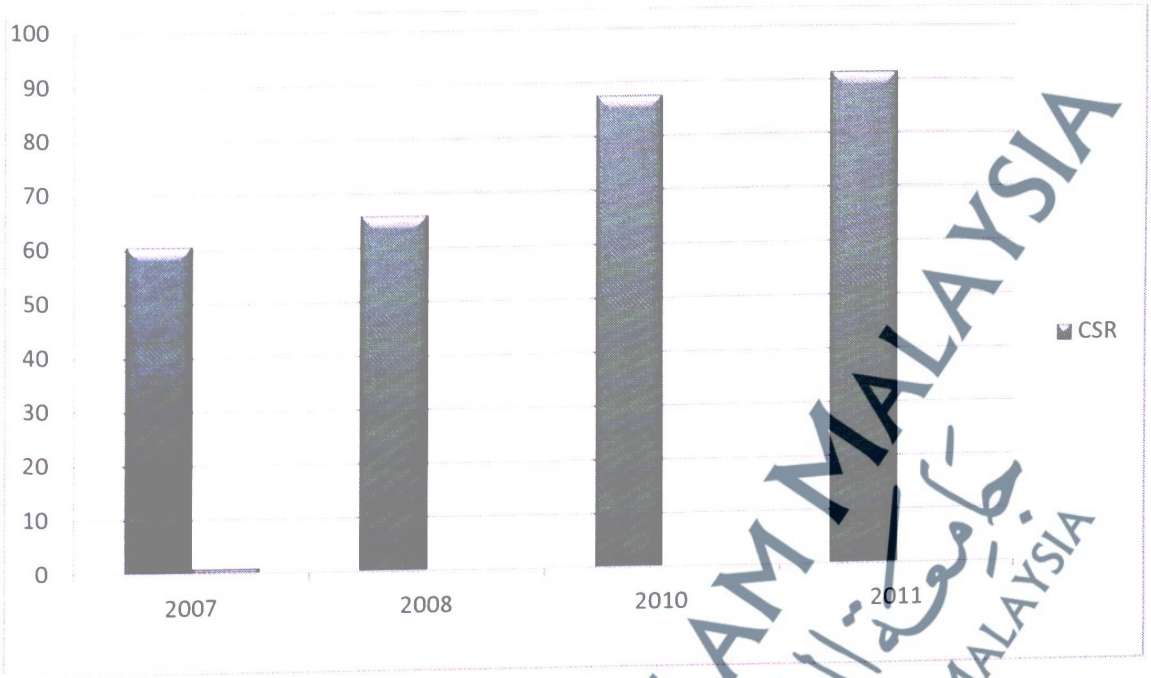
Table 5.1 Descriptive Statistics of CSR Level over Years by Total number of Sentences

Year	N	Total	Mean	Min	Max	Std. Deviation
2007	117	7103	60.71	0	304	55.34
2008	117	7722	66	3	360	62.12
2010	117	10211	87.27	11	293	64.82
2011	117	10712	91.55	15	353	73.70
Total	117	35748	76.38	0	360	

As can be seen from the table, the minimum CSR disclosure is 0, indicating that some companies do not provide any social disclosure in their annual report. The results found that only one company did not provide CSR in 2007. This result is due to the fact that all companies over the study period had some form of employee related disclosures which is considered a mandatory disclosure requirement.

There is an increasing level of CSR over the study period. The average level of CSR increased from 60.71 sentences to 66, 87.27 and 91.55 sentences in 2007, 2008, 2010 and 2011 respectively, as displayed in Figure 5.1 which depicts the extent of average CSR in the four years. Such an increasing trend over time could be ascribed to the fact that companies in Jordan may comply with the corporate governance code. This is clear when the years 2007 and 2008 (before implement CG code) with years 2010 and 2011 (after implement CG code) are compared as shown in Figure5.1.

Figure 5.1 Extent of CSR level (average of sentences)



5.2.2 The Level and Trend of CSR Categories

Table 5.2 provides descriptive statistics for the overall CSR categories for all years. The tables show that employee information theme is the most disclosed theme (with a total of 20399 and an average of 174 sentences). The second category is product or service information (with a total 7991 and an average of 68.30 sentences). This is followed by community involvement (with a total 5350 and an average of 45.73 sentences) and environmental themes (with a total of 1825 and an average of 15.60 sentences) while Islamic CSR had the lowest disclosure among the companies (with a total of 183 and an average of 1.56 sentences). The distribution of total CSR over categories is depicted in Figure 5.2

Table 5.2 Descriptive Statistics of Total CSR Categories

Categories	Total	Mean	Min	Max
Islamic CSR	183	1.56	0	180
Community Involvement	5350	45.73	0	426
Environmental	1825	15.60	0	153
Employee Information	20399	174	33	517
Product or Service Information	7991	68.30	0	371

Figure 5.2Distribution of Total CSR over Categories

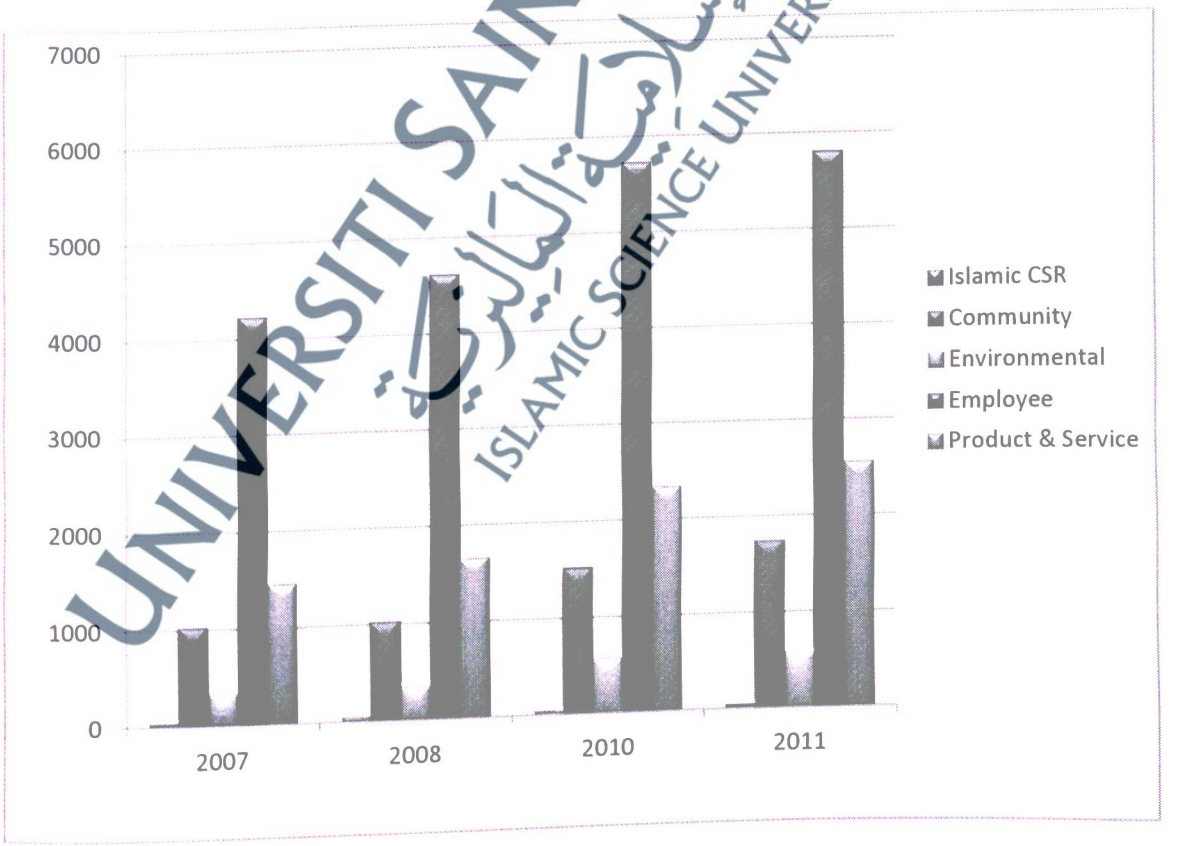
As can be seen from Figure 5.2, the pie chart shows that employee information theme represents 57% of the total disclosure which is the highest disclosure. This is followed by product or service information (22%), community involvement (15%), environmental (5%), and Islamic with a share of 0.05% of the total disclosure. The ranking of CSR categories are consistent and similar in each of the four years as shown in Table 5.3 and Figure 5.3. Employee information received the highest disclosure over the study period in terms of the number of companies and the CSR level, with a mean ranging from 36.12 sentences in 2007 to 49.65 sentences in 2011. The mean disclosure for other categories shows product or service information started from1 2.46 sentences in 2007 to 21.76 in 2011, community involvement increased from 8.85 in 2007 to 14.93 in 2011 sentences. While, Islamic CSR has the lowest mean in all years with a decrease from 0.42 sentences in 2007 to 0.36 sentences in 2011 with only one company disclosing some information.

Table 5.3 Descriptive Statistics of Categories of CSR over year

Year	Categories	Total	Mean	Min	Max
2007	Islamic CSR	49	.42	0	49
	Community Involvement	1036	8.85	0	89
	Environmental	334	2.85	0	23
	Employee Information	4226	36.12	0	168
	Product or Service Information	1458	12.46	0	89
2008	Islamic CSR	53	.46	0	53
	Community Involvement	1041	8.90	0	99
	Environmental	347	2.97	0	35
	Employee Information	4624	39.52	3	196
	Product or Service Information	1655	14.15	0	102

	Islamic CSR	38	.32	0	38
	Community Involvement	1526	13.04	0	108
2010	Environmental	577	4.93	0	42
	Employee Information	5738	49	11	149
	Product or Service Information	2332	19.93	0	92
	Islamic CSR	41	.36	0	41
	Community Involvement	1747	14.93	0	155
2011	Environmental	567	4.85	0	76
	Employee Information	5810	49.65	9	144
	Product or Service Information	2546	21.76	0	125

Figure 5.3 CSR Categories



5.2.3 Descriptive Statistics of CSR items

5.2.3.1 Islamic CSR

As mentioned before, this category has the lowest mean of CSR over the study period. Three items of Islamic CSR were included in this study namely, *zakat, waqf and Qard al Hassan*. Only one company discloses this category (Jordan Islamic Bank). Table 5.4 presents the total number of sentences of these items over the four year period. As shown in Table 5.4, *Qard al Hassan* is most commonly disclosed with total of 33, 32, 25 and 24 sentences in 2007, 2008, 2010 and 2011, respectively. The bank disclosed and provided rich information about *Qard al Hassan* regarding its policy to provide such loans, amount allocated, sources of the fund, uses of the fund's money and beneficiaries. Moreover, the bank reported the balance of *Qard al Hassan* in detail from beginning to end of the year under the section "Consolidated Statement of Sources and Uses of the Amounts of Al Qard Al Hasan Fund" (see Appendix D). The bank allocated (23,4) million for *Qard al Hassan* in 2011 which benefitted around 27,000 Jordanian. The majority of this amount went to education, medical treatment and marriage. Followed by *zakat*. Disclosure ranged from 16 sentences in 2007 to 17 in 2011. The bank provided information about the ways of paying and calculating *zakat* but did not mention the amount of *zakat* that should be paid because there is no law requiring the bank to pay *zakat*. Moreover, the bank's management is not responsible and authorized to pay *zakat* as clearly stated in the annual report of the *Sharia* Supervisory Board which mentioned that the shareholders are responsible to pay *zakat*. On the other hand, no company disclosed information related to *waqf*, because the strategy of Islamic bank in this period focused on *Qard al Hasan*.

Table 5.4 Descriptive of Islamic CSR

No	Items	2007	2008	2010	2011	Total
		No. of Sentences	No. of Sentences	No. of Sentences	No. of Sentences	No. of Sentences
1	*Zakat*	16	21	13	17	67
2	*Waqf*	0	0	0	0	0
3	*Qard alHassan*	33	32	25	24	114

5.2.3.2 Community Involvement

As indicated in Table 5.5, the highest score received in this category was in 2011 with a total 1,747 and mean of 14.93 sentences. Four items were categorised as community involvement information. As shown in Table 5.5, the "General philanthropy" item is the most popular item disclosed with a total of 2,501 sentences and a mean of 5.34. The second item ranked in this theme is the "Community programmes (health and education)" the mean number of sentences for this item is 3.98 sentences, followed by "Supporting the development of local industries or community programmes and activities" with a mean of 1.58. Only few companies disclosed information related to "Participation in government social campaigns" which had the smallest mean of 0.52 sentences.

From the result, it can be noticed that Jordanian companies tend to disclose more information under "General philanthropy" items including many activities (charitable donations, support of orphans, the disabled and needy people, provide *Iftar* meals in Ramadan to families in poor areas in Jordan). Companies are involved in such

activities because they offer a range of activities. The majority of Jordanian companies prefer not to participate in government campaigns. This may be because they do not trust and believe in such campaigns. This is consistent with the study of Hamadeen and Badra (2014) who found that only few companies in Jordan disclosed information about the company's participation in the government campaigns regarding to environmental activities.

Table 5.5 Descriptive of Community Involvement

N	Items	2007		2008		2010		2011		Total	
		Mean	Sum	Mean	Sum	Mean	Sum	Mean	Sum	Mean	Sum
1	General philanthropy	3.97	464	4.32	506	6.31	738	6.78	793	5.34	2501
2	Community programmes (health and education)	2.97	347	3.12	365	4.54	531	5.30	620	3.98	1863
3	Participation in government social campaigns	.52	61	.47	55	.55	64	.57	67	0.52	247
4	Supporting the development of local industries or community	1.40	164	.98	115	1.65	193	2.30	267	1.58	739

5.2.3.3 Environmental Information

The disclosures about environmental information were relatively rare in Jordan. Five items were classified as environmental information. Table 5.6 provides descriptive statistics of each of the items. As show, "Environmental protection programme" ranked the highest mean over the four years with a mean of 2.49 sentences. Its mean ranges from two sentences in 2007 to 3.07 in 2011. Environmental policies ranked the second highest item disclosed with a mean 0.95 of sentences. on the other hand, "Environmental audit", "Awards for environmental protection" and "Support for public/private action designed to protect the environment" received low scored, especially "Environmental audit" which is the lowest in all years and no company disclosed this items in 2007 and 2008. As a result, the majority of environmental disclosures were related to the manufacturing company such as Arab Electrical Industries and National Chlorine Industries which disclosed all environmental information items. On the other hand, all banks made some sort of environmental disclosure. This is evidence that Jordanian banks grew more aware of environmental issues. The banks in Jordan support and participate in many actives to protect the environment.

Table 5.6 Descriptive of Environmental Information

N	Items	2007		2008		2010		2011		Total	
		Mean	Sum	Mean	Sum	Mean	Sum	Mean	Sum	Mean	Sum
1	Environmental policies	0.75	88	0.75	89	1.20	140	1.11	130	0.95	447
2	Environmental protection programme	2.00	234	2.00	222	2.87	336	3.07	359	2.49	1154
3	Awards for environmental protection	0.03	3	0.03	2	.15	17	0.07	8	0.07	32
4	Support for public/private action designed to protect the environment	0.08	9	0.08	34	.58	68	0.56	66	0.33	177
5	Environmental audit	0.00	0	0.00	0	.14	16	0.03	4	0.04	20

5.2.3.4 Employee information

As previously mentioned, disclosure about employee information is the most popular theme over the study period, and almost all Jordanian companies disclosed this item. This may be due to the fact that the majority of items in this category are required by law (i.e., Securities Commission law for 2002 and 2004), example of such items that are required by law: number of employee, Number of employee training and "Providing information on the qualifications of employees", "Providing amount

and/or percentage figures for salaries, wages, PAYE taxes, Any "policy/objective/reason/amount for the company"s remuneration package/schemes. This category contains eighteen items which cover different areas related to the employee. It can be seen in Table 5.7 that the most common disclosures in this category was related to "Providing information on the qualifications of employees recruited" with an average score of 10.47 sentences. Jordanian companies provided detailed information about the board members and senior management executives in terms of education, specific experience, qualifications, attributes or skills. The volume of disclosure for this items in some cases exceeded 75 sentences and some companies allocated one page to one member including his/her picture. Moreover, the majority of companies classified employees according to academic qualifications. This item is the highest item disclosed in this study. Other items consider to be commonly disclosed was Providing amount and/or percentage figures for salaries, wages, PAYE taxes Any "policy/objective/reason/amount for the company's remuneration package/schemes" with a mean of 7.92 sentences. These items are monetary disclosures required by law. The number of employees is also an important item with an average of 5.81 sentences. The companies not only disclosed the number of all employees but also disclosed according to geographical region and foreign employees. On the other hand, a few companies categorised employees by age and gender or percentage or number of minority and/or women employees in the workforce. The mean of these items were 0.01, 0.13, and 0.08 respectively. Regarding to employee training, the majority of companies in Jordan disclosed the number of employee training with an average of 6.37 sentences but few companies provided information about the amount spent on employees training (0.37sentences). Disclosures about health and safety issues in Jordan are not encouraging, as indicated from the table. The mean of "Cost of safety

measures" items is 0.18 sentences, Health and safety standards (0.50), and providing low cost health care for employees (0.62). This kind of information is mostly disclosed in manufacturing companies. Results from the table show that Jordanian companies do not give attention to the employee's welfare and facilities with average 0.53 sentences discussion of employees welfare in the annual report. "Providing staff accommodation or ownership schemes" (0.23), Providing recreational activities/facilities (1.05), Sponsoring educational conferences, seminars or art exhibitions (0.97). One of the lowest items in this category is "Information on accidents" while few companies provided information about this items with a mean of 0.14 sentences. This is because companies consider these items as bad news. Companies tend to hide bad news because the management believes that such information has a negative impact on the company's reputation. The results are consistent with studies of Hackston and Milne (1996) who found that only four sentences of bad news information disclosed by New Zealand companies. In Bangladesh, Belal (2001) found that the information disclosed realted to bad news was very low with only one instance of disclosure.

Table 5.7 Descriptive of Employee Information

N	Items	2007		2008		2010		2011		Total	
		Mean	Sum	Mean	Sum	Mean	Sum	Mean	Sum	Sum	Mean
1	Number of employees	5.02	588.0	5.03	589.0	6.63	776.0	6.53	764.0	2717	5.81
2	Categories of employees by age	.00	.0	.00	.0	.00	.0	.02	3.0	3	0.01

3	Categories of employees by gender	.07	9.0	.07	9.0	.18	22.0	. 17	20.0	60	0.13
4	Disclosing percentage or number of minority and/or women employees in the workforce and/or in the various managerial levels	.05	6.0	.06	8.0	.07	9.0	.12	15.0	38	0.08
5	Providing information on the qualifications of employees recruited	8.4	984	9.1	1067	12.1	1417	12.2	1435	4903	10.47
6	Providing amount and/or percentage figures for salaries, wages, PAYE taxes, superannuation	6.41	751.0	7.10	831.0	8.12	950.0	8.21	961.0	3493	7.92
7	Any policy/objective/reason/amount for the company's remuneration package/schemes.	7.17	840.0	7.60	890.0	8.41	984.0	8.49	994.0	3708	7.92

8	Providing staff accommodation or ownership schemes	.24	29.0	.17	21.0	.23	28.0	.23	28.0	106	0.23
9	Providing recreational activities/facilities	.60	71.0	.67	79.0	1.41	165.0	1.52	178.0	493	1.05
10	Sponsoring educational conferences. seminars or art exhibitions	.61	72.0	.62	73.0	1.27	149.0	1.35	158.0	452	0.97
11	Providing information on the company/management's relationships with the employees in an effort to improve job satisfaction and employee motivation	.35	41.0	.53	63.0	.93	109.0	1.12	131.0	344	0.74
12	Information on accidents	.17	21.0	.12	15.0	.12	15.0	.12	15.0	66	.14
13	Cost of safety measures	.22	26.0	.20	24.0	.16	19.0	.13	16.0	85	0.18
14	Health and safety standards	.32	38.0	.39	46.0	.69	81.0	.59	70.0	235	0.50
15	Providing low cost health care for employees	.32	38.0	.59	70.0	.59	69.0	.96	113.0	290	0.62

16	Number of employee training	5.50	644.0	6.25	732.0	6.82	798.0	6.89	807.0	2981	6.37
17	Amount spent on employees training	.256	30.0	.42	49.0	.40	47.0	.41	49.0	175	0.37
18	Discussion of employees welfare	.32	38.0	.49	58.0	.85	100.0	.45	53.0	249	0.53

5.2.3.5 Product or Service Information

Six items were categorised under product and service information. Disclosures for this theme received most attention after employee information as indicated in Table 5.8. However, Table 5.8 presents the descriptive of items in this category. It can be seen that most companies provided a discussion of major types of service and products with a mean of 5.92 sentences, ranging from 4.83 sentences in 2007 to 7.33 sentences in 2011. This was followed by 4.55, 4.12 and 1.31 sentences respectively on "Improvement in customer services", "Customer awards/ratings received" and "Information on developments related to the company's products". The remaining items were poorly disclosed with only 0.57 sentences related to the 'Improvement in product quality' and 0.61 sentences for 'Information on the safety of the firm's product.'

Table 5.8 Descriptive of Product or Service Information

N	Items	2007		2008		2010		2011		Total	
		Mean	Sum	Mean	Sum	Mean	Sum	Mean	Sum	Mean	Sum
1	Discussion of major types of products/service	4.83	565	4.69	549	6.81	797	7.33	858	5.92	2769
2	Improvement in product quality	.45	53	0.44	51	0.75	88	0.62	73	0.57	265
3	Improvement in customer services	3.10	363	3.94	461	5.52	646	5.65	661	4.55	2131
4	Customer awards/ratings received	.91	106	1.13	132	1.11	130	2.08	243	1.31	611
5	Information on the safety of the firm`s product	.31	36	0.42	49	0.81	95	0.91	106	0.61	286
6	Information on developments related to the company`s products	2.86	335	3.53	413	4.92	576	5.17	605	4.12	1929

5.3 DESCRIPTIVE STATISTICS OF CSR (DISCLOSURE INDEX)

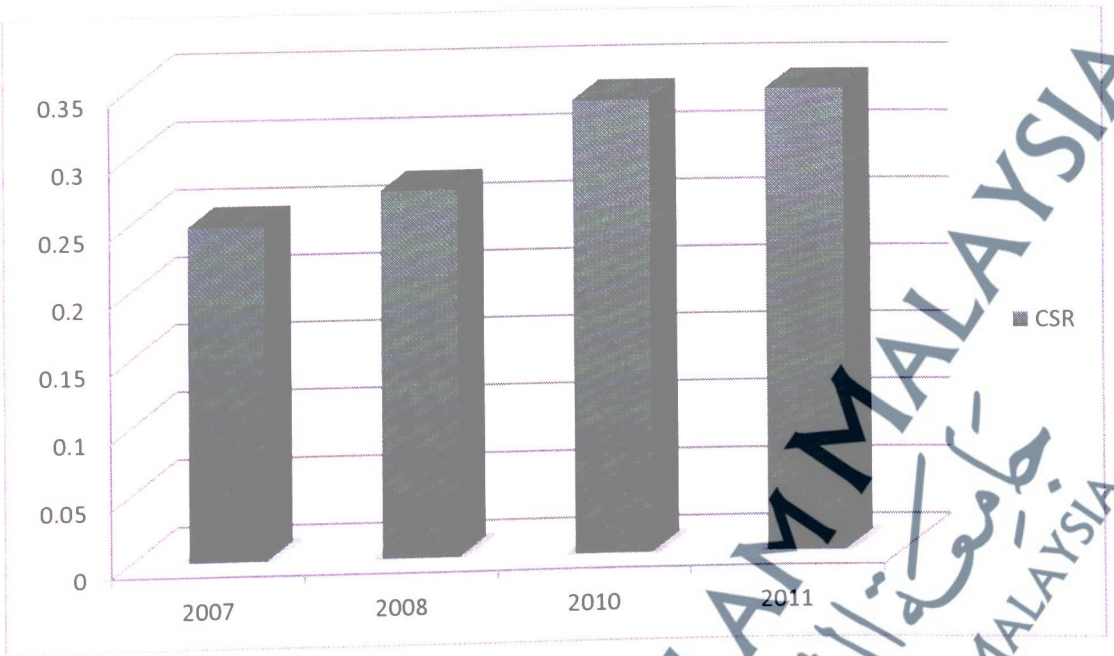
5.3.1 Descriptive Statistics of CSR Level over Years

Table 5.9 presents the overall of CSR disclosure for each year measurement by disclosure index. The table showed that the mean CSR disclosure over the four years is about 30%. This means that companies in Jordan disclose around 11 out of 36 items which represent 30% of checklist items. This result is acceptable compared to other studies such as Ghazali (2007) who found that the mean of CSR disclosure is 25.5% in Malaysia, and Barako and Brown (2008) who found that Kenyan banks on average disclosed 15% of items. The tables show that the minimum disclosure index obtained is zero for 2007, while the maximum is 88% for 2008. The table provides evidence for increasing the extent of CSR disclosure over the period. Where the mean of CSR disclosure is 24%, 27%, 33% and 34% in 2007, 2008, 2010 and 2011 respectively. Figures 5.4present the extent of CSR disclosure for each of the years of the study.

Table 5.9 Descriptive Statistics of CSR Level over Years

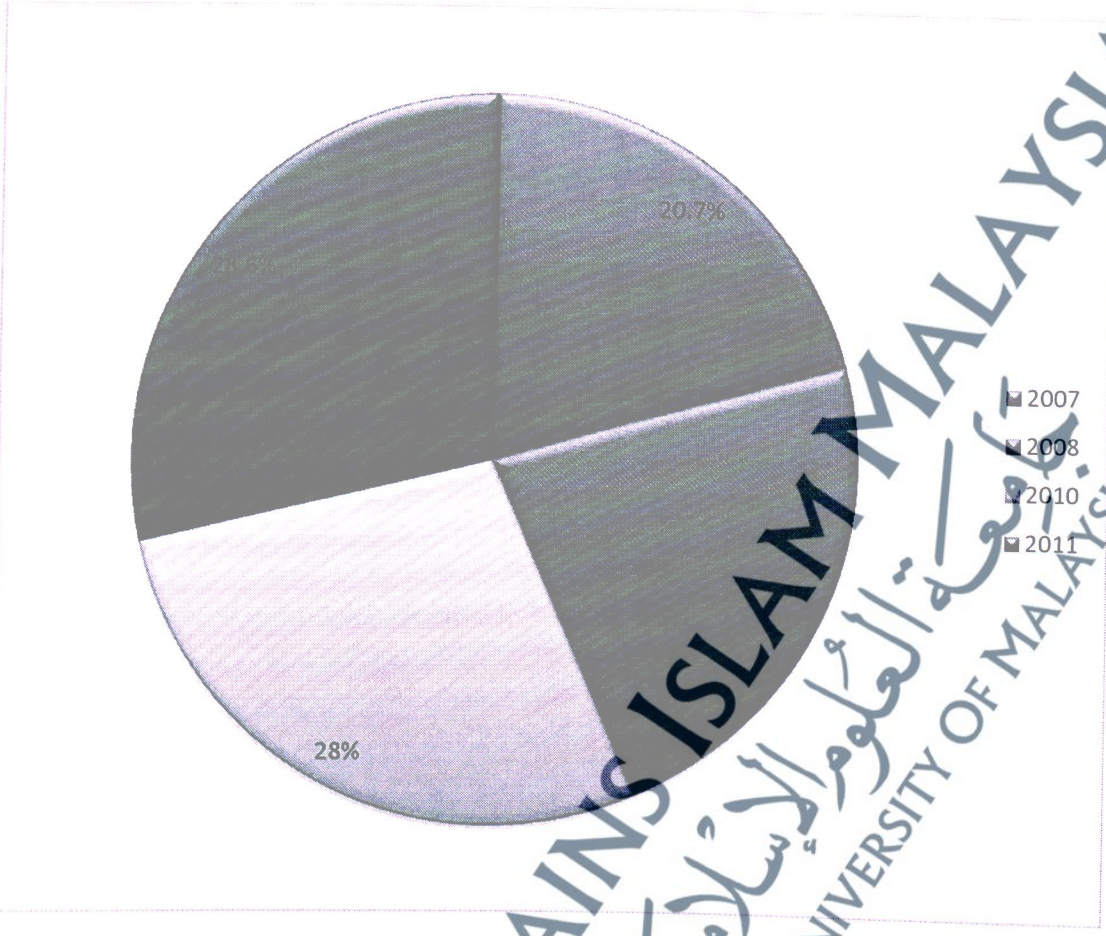
Year	N	Total	Mean	Min	Max	Std. Deviation
2007	117	28.99	.2478	.00	.62	.14954
2008	117	31.81	.2719	.06	.88	17481
2010	117	39.35	.3363	.11	.72	.16479
2011	117	40.17	.3434	.08	.66	.16628
Total	117	140.32	.30	.00	.88	.16864

Figure 5.4 Extent of CSR level



It is clear from the above figure that CSR disclosure increased over the study period. Figure 5.5 shows the contribution made by each year towards CSR, where 2011 has the greatest contribution towards CSR representing 28.6% of the total disclosure, followed by 2010 with 28% and 2008 with 22.7 %, while 2007 has the smallest share representing 20.7% of the total disclosure.

Figure 5.5 Distribution of Total CSR over Years



5.3.2 The Level and Trend of CSR Categories

Table 5.10 presents descriptive statistics for all CSR categories for all years. The table show that the ranking of the first three themes seem to have a similar average where the employee information theme is the most disclosed theme with a mean of %35. The second category is shared between community involvement and product or service information with an average of 34% while environment with 19% and Islamic CSR had the lowest disclosure among the companies with .0057%. The distribution of

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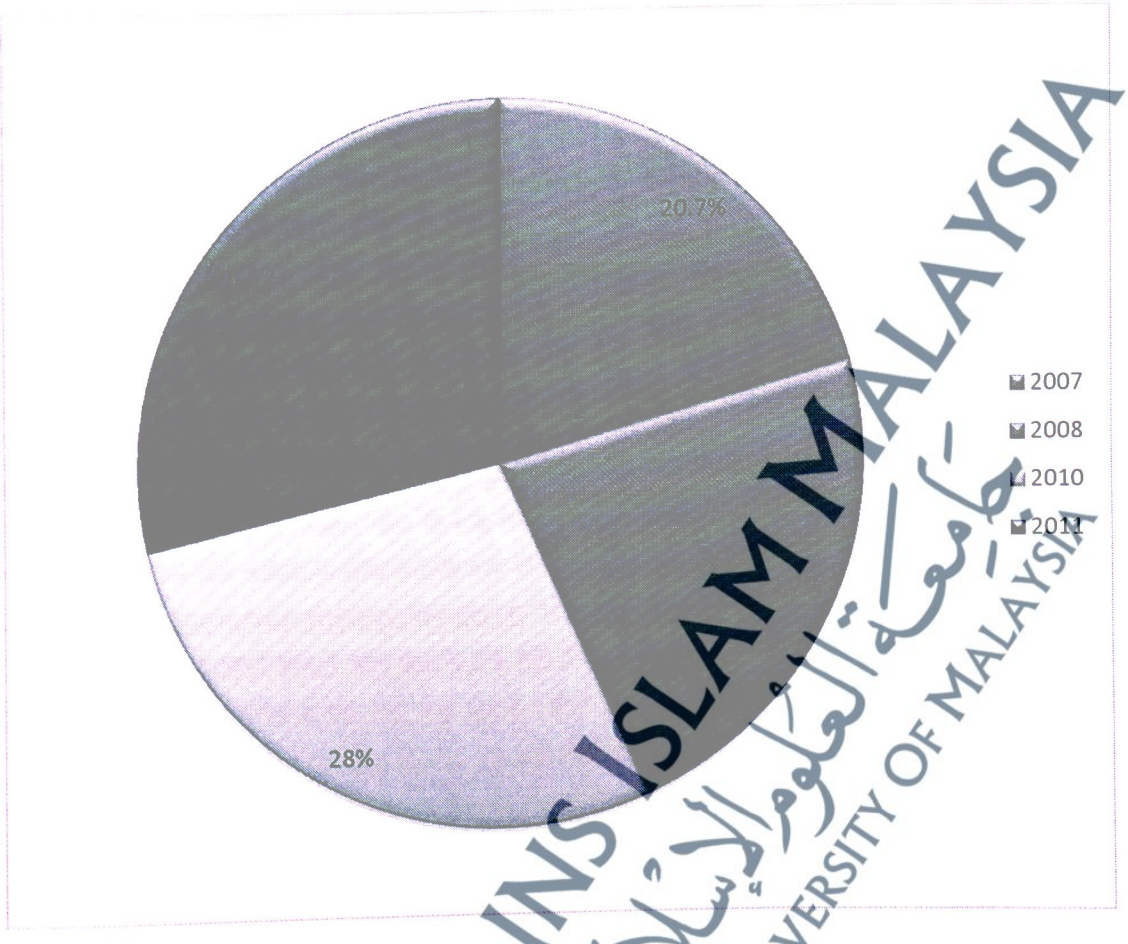

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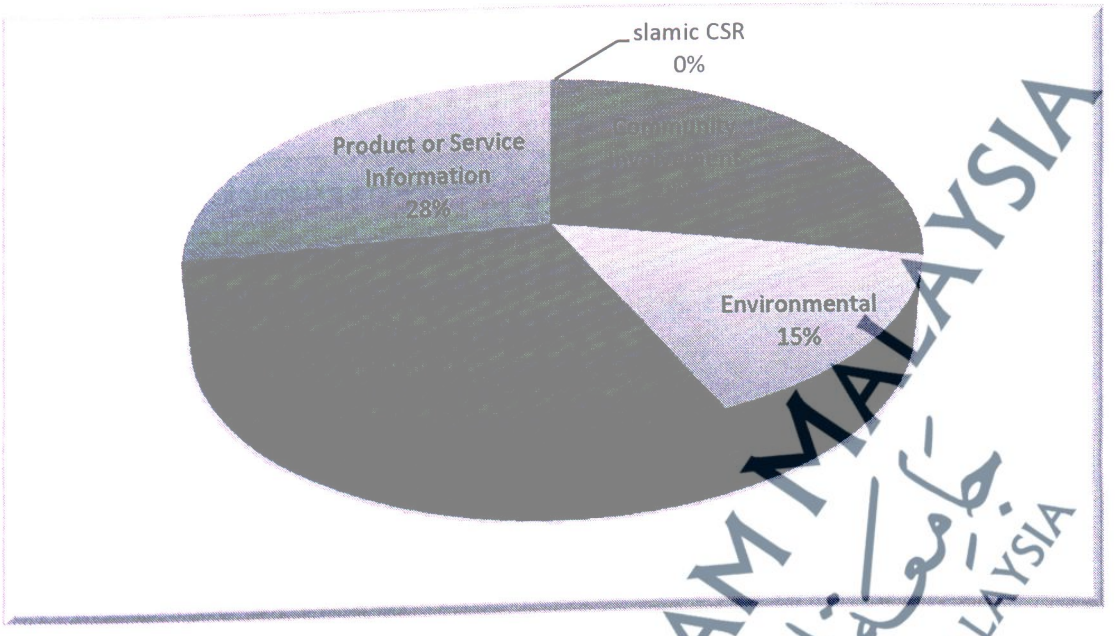
total CSR over categories is depicted in Figure 5.6. As can be seen from Figure 5.6, the pie chart shows that employee information theme represents (29%) of the total disclosure which is the highest disclosure among other theme. This is followed by community involvement and, product or service information theme (28%) then, environmental information (15%) while Islamic CSR is the smallest with a share of zero out of the total disclosure. In terms of the percentage of companies disclosing, 99.7% of Jordanian companies disclose information related to employee Information, 63% for community involvement, 50% environmental information and 77% of companies disclosed information about product or service. Only, one Jordanian company disclosed information related to Islamic CSR.

Table 5.10 Descriptive Statistics of Total CSR Categories

Categories	N	Min	Max	Mean	Std. Deviation
Islamic CSR	468	.00	.67	.0057	.06144
Community Involvement	468	.00	1.00	.3403	.32761
Environmental	468	.00	1.00	.1893	.22128
Employee Information	468	.00	1.00	.3553	.16493
Product or Service Information	468	.00	1.00	.3397	.29158

Figure 5.6 Distribution of Total CSR over Categories

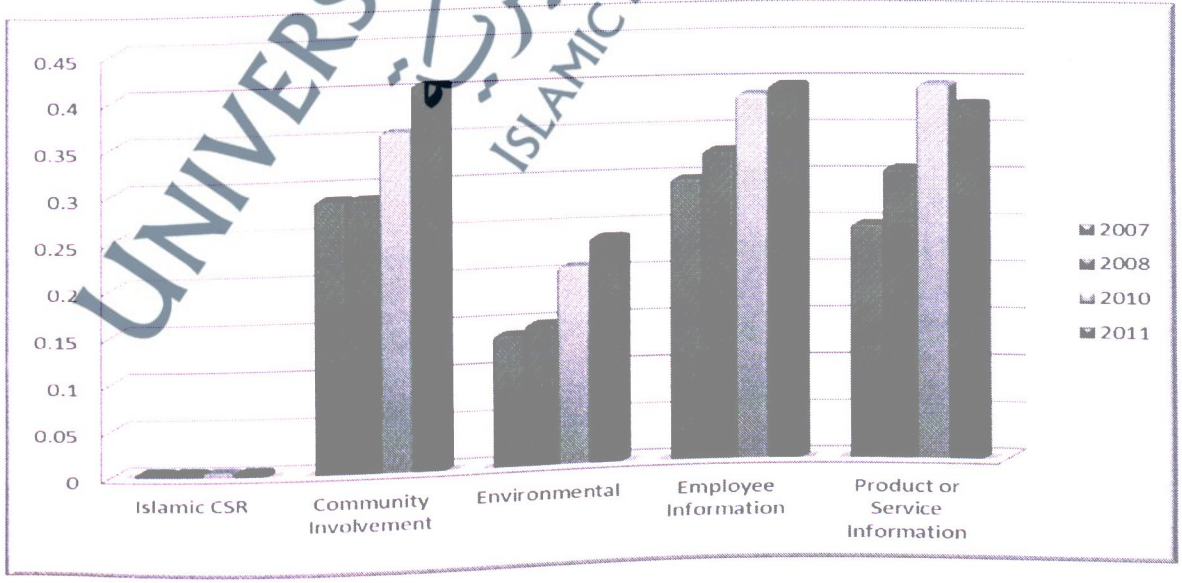


In general, disclosure for all CSR categories increased over the study period except the Islamic CSR which did not change over time as it was disclosed by only one company. Table 5.11 and Figure 5.7 show that the mean of employee information ranging from 30% in 2007 to 40% in 2011. While, the mean disclosure for other categories shows product or service information started from 25% in 2007 to 38% in 2011, community involvement increased from 29% in 2007 to 41% in 2011.While, the Islamic CSR has the lowest mean in all years with .005%. The poor disclosure of Islamic CSR information is due to an absence of regulation since Islamic CSR is voluntary in Jordan. Moreover, the management believes that *zakat, waqf and Qard al Hassan* are not compulsory business payments but the responsibility of individuals.

Table 5.11 Descriptive Statistics of Categories of CSR over year

Year	Categories	Mean	Min	Max
2007	Islamic CSR	.005	0	.66
	Community Involvement	.29	0	1
	Environmental	.14	0	.60
	Employee Information	.30	0	.72
	Product or Service Information	.25	0	1
2008	Islamic CSR	.005	0	.66
	Community Involvement	.29	0	1
	Environmental	.15	0	.80
	Employee Information	.33	.11	1
	Product or Service Information	.31	0	1
2010	Islamic CSR	.005	0	.66
	Community Involvement	.36	0	1
	Environmental	.21	0	.80
	Employee Information	.39	.16	.77
	Product or Service Information	.40	0	1
2011	Islamic CSR	.005	0	.66
	Community Involvement	.41	0	1
	Environmental	.24	0	1
	Employee Information	.40	.16	.83
	Product or Service Information	.38	0	1

Figure 5.7 CSR Categories



5.3.3 Descriptive Statistics of CSR Items

The following analysis of items covers thirsty six items identified as CSR information and grouped under five categories: Islamic CSR, community involvement, environmental information, employee information and product and service information. Table 5.12 shows the frequency of companies making disclosure. This analysis captures the nature of disclosure rather than the amount thus, show how important these items to the firms. As can be seen, items under the Islamic CSR category have the lowest disclosure by companies among the items over the study period. Information on *waqf* had the lowest disclosure among all items over the four years. None of companies over the study period disclosed information about this item. The remaining items under this category related to *Zakat and Qard al Hassan* were only disclosed by one company (the Jordan Islamic Bank).

Table 5.12 shows that the most important disclosed items are allocated under employee information. Many items under this category were classified as the top ranking among all items over the study period because are considered a mandatory disclosure requirement, whereby 99% of companies disclosed items related to "Providing amount and/or percentage figures for salaries, wages, PAYE taxes, superannuation" and "Any policy/objective/reason for the company's remuneration package/schemes" and were classified as the most commonly disclosed items in this category as it a mandatory disclosure requirement. Among both items' disclosure, the number of companies that disclose these items increased from 112 companies, representing 95.7% in 2007 to 117 companies in 2011 which means all companies disclosed these items in that year. The third popular item was regarding the number of

employees where, 95.5 % of companies disclosed this items. All companies (117) disclosed this item in 2011 and 2010 while 90.6% in 2008 and 91.5 in 2007%. The last important items were related to "Providing information on the qualifications of employees recruited" with 90.4%. Items related to "Categories of employees by age and gender" and "Disclosing percentage or number of minority and/or women employees in the workforce and/or in the various managerial levels" and "Information on accidents" have been classified as the lowest items disclosed in this category with 1.3%, 3.2%, 2.8% and 3.4% of companies respectively disclosed these items.

As earlier mentioned, 77% of Jordanian companies provide information related to product and service information theme. This type of information used by companies as tool to advertising and promote their products or services and as a way to enhance corporate image.It can be seen that most companies (72.4%) provided a discussion of major types of service and products. Information on the safety of the firm's product were found to be lowest item disclosed in this theme with only 12.2% of companies. In terms of community involvement, 63% of companies disclosed at least one sort of community involvement information. The majority were related to general philanthropy (62.4%) while companies tend to disclosed less information related to participation in government social campaigns (10%).

The disclosures about environmental information were not encouraging whereby only 50% of companies disclosed information related to the environment. The highest items disclosed in this theme were the environmental protection programme with 41.9%, follow by environmental policies (37.4%). The remaining items in this theme included environmental audit with 2.3%

Table 5.12 Frequencies of CSR items

No	Items	2011		2010		2008		2007		pooled	
		NO.	%	NO	%	NO	%	NO	%	NO	%
	Islamic CSR										
1	Zakat	1	.9%	1	.9%	1	.9%	1	.9%	4	.9%
2	Waqif	0	0	0	0	0	0	0	0	0	0
3	Qard al Hassan	1	.9%	1	.9%	1	.9%	1	.9%	4	.9%
	Community Involvement										
4	General philanthropy	76	65 %	85	72.6 %	67	57.3 %	64	54.7 %	292	62.4 %
5	Community programmes (health and education)	54	46 %	63	53.8 %	42	36%	47	40.2 %	206	44%
6	Participation in government social campaigns	17	14 %	13	11%	9	7.7%	8	6.8 %	47	10%
7	Supporting the development of local industries or community programmes and activities	26	22 %	31	26.5 %	18	15.4 %	17	14.5 %	92	19.7 %
	Environmental										
8	Environmental policies	47	40 %	52	44%	39	33.3 %	37	31.6 %	175	37.4 %
9	Environmental protection programme	57	49 %	55	47%	45	38.5 %	39	33.3 %	196	41.9 %
10	Awards for environmental protection	5	4%	6	5%	3	2.6%	1	.9%	15	3.2 %

11	Support for public/private action designed to protect the environment	17	14 %	20	17%	4	3.4%	5	4.3 %	46	9.8 %
12	Environmental audit	2	1.7 %	8	6.8%	0	0	1	.9%	466	2.3 %
	Employee information										
13	Number of employees	117	100 %	117	100 %	106	90.6 %	107	91.5 %	447	95.5 %
14	Categories of employees by age	3	2.6 %	2	1.7%	1	.9%	0	0	6	1.3 %
15	Categories of employees by gender	3	2.6 %	5	4.3%	4	3.4%	3	2.6 %	15	3.2 %
16	Disclosing percentage or number of minority and/or women employees in the workforce and/or in the various managerial levels	5	4%	4	3.4%	3	2.6%	1	.9%	13	2.8 %
17	Providing information on the qualifications of employees recruited	115	98 %	114	97.4 %	96	82.1 %	98	83.8 %	423	90.4 %
18	Providing amount and/or percentage figures for salaries, wages, PAYE taxes, superannuation	117	100 %	117	100 %	116	99.1 %	112	95.7 %	462	98.7 %
19	Any policy/objective/reason for the company's remuneration package/schemes	117	100 %	116	99.1 %	114	94.4 %	114	97.4 %	461	98.5 %
20	Providing staff accommodation or ownership schemes	15	13 %	22	18.8 %	7	6%	8	6.8 %	52	11.1 %

21	Providing recreational activities/facilities	39	33 %	39	33%	23	19.7 %	19	16.2 %	120	25.6 %
22	Sponsoring educational conferences, seminars or art exhibitions	41	35 %	40	34.2 %	22	18.8 %	18	15.4 %	121	25.9 %
23	Providing information on the company/management`s relationships with the employees in an effort to improve job satisfaction and employee motivation	29	25 %	26	22.2 %	1	.9%	9	7.7 %	80	17%
24	Information on accidents	5	4%	3	2.6%	5	4.3%	3	2.6 %	16	3.4 %
25	Cost of safety measures	7	6%	7	6%	11	9.4%	8	6.8 %	33	7.1 %
26	Health and safety standards	14	12 %	24	20.5 %	10	8.5%	9	7.7 %	57	12.2 %
27	Providing low cost health care for employees	49	42 %	43	36.8 %	36	30.8 %	25	21.4 %	153	32.7 %
28	Number of employee training	77	66 %	79	67.5 %	64	54.7 %	64	54.7 %	284	60.7 %
29	Amount spent on employees training	49	42 %	55	47%	36	30.8 %	28	23.9 %	168	35.9 %
30	Discussion of employees welfare	23	20 %	27	23.1 %	15	12.8 %	7	6%	72	15.4 %
Product and service information											
31	Discussion of major types of products/service	100	85.5%	99	84.6 %	74	63.2 %	66	56.4 %	339	72.4 %
32	Improvement in product quality	30	26 %	24	20.5 %	25	21.4 %	12	10.3 %	91	19.4 %

33	Improvement in customer services	58	50 %	59	50.4 %	40	34.2 %	38	32.5 %	195	41.7 %
34	Customer awards/ratings received	33	28 %	28	24%	31	26.5 %	25	21.4 %	117	25%
35	Information on the safety of the firm`s product	16	14 %	18	15.4 %	14	12%	9	7.7 %	57	12.2 %
36	Information on developments related to the company`s products	49	42 %	42	34%	34	29.1 %	30	25.6 %	155	33.1 %

5.4 DESCRIPTIVE STATISTICS OF INDEPENDENT VARIABLES

Descriptive statistics for independent, control and moderate variables are presented in Tables 5.13 and 5.14. The tables show the descriptive statistics of corporate governance and board diversity characteristics. With regard to gender diversity, the average of female board members is 0.027, with a minimum value of 0 and a maximum 0.60 while few companies have three or more women on the board. The result indicated that 28 out of 117 companies have at least one woman member on the board, representing 23% of all companies. This result is low compared with other studies. For example,90% of Fortune 500 companies had at least one woman on the board (Bear at al., 2010). On the other hand, the result is more consistent with what has been found in some developing countries such as Malaysia (30.8%) and, Indonesia (26.7%) which had at least one female director in 2009 (Governance Metrics International, 2011). This results provid evidence that the representation of women in the boardroom remains low in Jordan, the reason may be due to cultural bias

in Arab countries where, gender equality is not supported in employment especially at the management level because in Arab culture men do not prefer women to work and interact with other men (Salma and Lamki, 1999), preferring instead that they work in teaching or nursing. They stated that women in the Arab world face difficulty in being appointed in senior positions without strong family connections.

With regard to age diversity, the mean of the young directors is 0.13, indicating that majority of board members were not young. The mean of independent directors is 0.077. This means that the percentage of independent directors to the total number of directors is low despite half of the sampled companies have at least one independent director but, the companies in general did not comply with CG code which requires that at least one third of the board members is comprised of independent directors. The mean of foreign directors on the boards is 0.11, meaning that 11% of directors are foreigners, ranging from 0 to 100%. This result is expected to be high due to the fact that the percentage of non-Jordanian ownership is 49% of the total market capitalization of the ASE. However, this average is less than other developing countries, such as 22% of non-Kenyan directors on the board (Barako and Brown, 2008) and 21% of foreign board members on the banks in Bangladesh (Khan ,2010).

With respect to corporate governance mechanisms, the majority of companies (83%) separate between the CEO and chairman roles. This means that 17% of companies have CEO duality, majority of these case occurred in family controlled companies, where chair of the board of directors and the CEO positions usually held by family members. Thus, these companies should be complying with CG code which not allowed holding the chair and CEO positions in the company at the same time.

However, the majority of companies have multiple directorships 83%. While the percentage of family member on the board to the total number of board members is low with mean 0.06. The minimum is 0 and the maximum is 100% which is found only in four companies. The mean of the proportion of independent members of audit committee is 0.11. Although the majority of companies have an audit committee but the number of independent directors is low compared to previous studies such as Ho and Wong (2001) who found that 23.5% of audit firms had an independent director on the audit committee in Hong Kong companies. This result indicated that Jordanian companies did not comply with CG code which requires companies to have an audit committee with at least three members of the board of directors, at least two of which must be independent members.

Regarding control variables, company size ranges from JD 0.550 million to JD 23.921 billion with an average of JD 29 million. In addition, profitability measurement by return on asset ranges from -79 to 43. The range of board size is between three and 16 while the average is 8. This indicate that board size in Jordan is considered optimal, as stated by Ning et al. (2010) who found that the optimal size of boards for firms in the USA ranged from eight to 11 directors and Lipton and Lorsch (1992) who suggested that the optimal size for a board should be eight or nine members.

Table 5.13 Descriptive Statistics of For All Continuous Variables

	N	Minimum	Maximum	Mean	Std. Deviation
GEND	468	.000	.600	.02773	.069381
AGE	468	.000	.833	.13723	.165419
IND	468	.000	.846	.07786	.138342
NAT	468	.000	1.000	.10977	.182284
FMOB	468	.000	1.000	.06052	.157743
AUD	468	.000	1.000	.11111	.270705
SIZ(in JD million)	468	.550	23921	29	.815553
PRO	468	-79.90	43.29	1.40	10.271755
BOSIZ	468	3	16	8.45	2.401

Table 5.14 Descriptive Statistics for All Dichotomous Variables

			Frequency	Percent	Cumulative Percent
RODU	Valid	0	386	82.5	82.5
		1	82	17.5	100
		Total	468	100	
	Valid	0	81	17.3	17.3
MD		1	387	82.7	100
		Total	468	100	

5.5 MULTIVARIATE REGRESSION ANALYSIS

Two sets of regression models were employed in this study to test the hypotheses. First, the regression model employed to test the hypotheses related to the impact of board diversity and corporate governance mechanism on the level of CSR. Second, regression model was employed to test the hypotheses that related to the moderating impact of board size (moderating variables) on the relationship between corporate governance and board diversity (independent variables) and the level of CSR.

A number of tests should be undertaken to meet the assumptions of OLS in order to ensure that data are sufficient and result are not misleading. Some tests are employed before running the regression, which includes normality, multicollinearity, and linearity tests. Other tests are specifically for the panel data and employed after running the regression including test of heteroskedasticity and autocorrelation.

5.5.1Testing for normality

The assumption of normality implies that distribution of the errors (residuals) should be distributed normally. The presence of non-normality leads to inefficient OLS estimators whereby the estimated of standard errors and t-statistics will become inconsistent and biased (Greene, 2008). Therefore, normality is necessary for valid hypothesis testing. The current study use two common tests for normality namely skewness and kurtosis. The data is considered to be normally distributed if the skewness values range from -1.96- +1.96 , and kurtosis value is within the range -2.0 to +2.0 (Coakes and Steed , 2003). A graphical method was also used to test for

normality such as: histogram, P-P plot and Density estimate. A normality test was conducted using STATA software. The result in Table 5.15 shows that most of the variables in this study are not normally distributed. The histogram and P-P plot method support this result. Figures 5.8, 5.9 and 5.10 show that dependent variable weather measurement by sentence or disclosure index are non-normally distributed.

Table 5.15 Skewness and Kurtosis Tests for Normality

	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
CSRDI	468	.529	.113	-.714	.225
CSRDA	468	1.677	.113	2.023	.225
GEND	468	3.538	.113	16.322	.225
IND	468	2.006	.113	4.359	.225
NAT	468	1.803	.113	2.887	.225
AGE	468	1.523	.113	2.617	.225
AUD	468	2.331	.113	4.095	.225
FMOB	468	3.266	.113	12.357	.225
BOSIZ	468	.196	.113	.031	.225
SIZ	468	.827	.113	1.021	.225
PRO	468	-1.366	.113	1.303	.225

Figure 5.8 Histogram of CSR

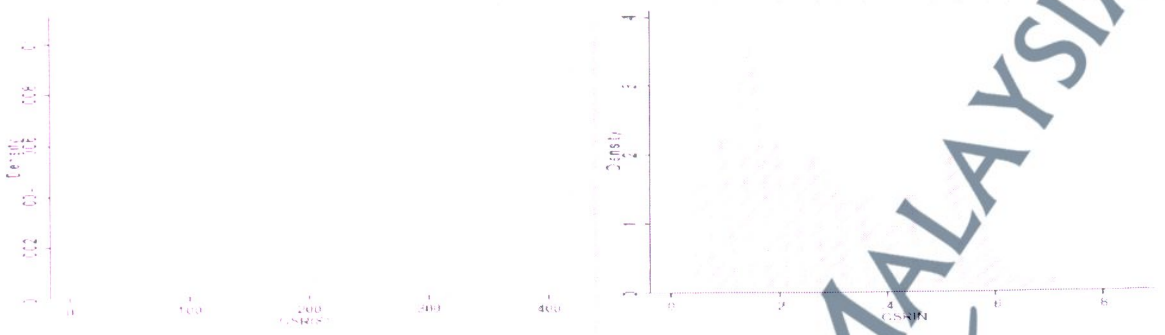
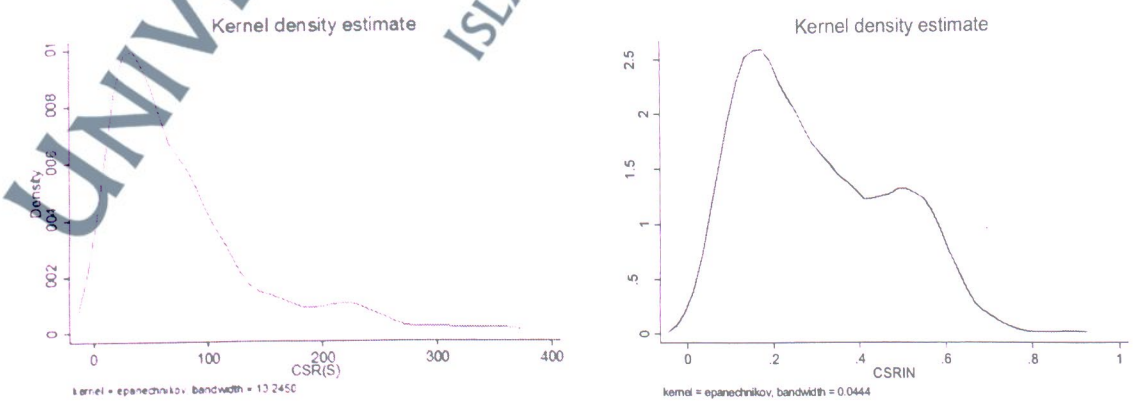


Figure 5.9 P-P plot

Figure 5.10 Density Estimate



To deal with the problems of non-normality, the study employed transformation of the data. Cooke (1998) argued that the common way to deal with non-normality and non-linearity in disclosure studies is to transform the data. Several forms of transformation can be used such as logarithmic, inverse, square root and normal score. One of the most common transformation methods is the normal score. This form of transformation has been used by a number of previous studies such as Haniffa and Cooke (2002), Haniffa and Cooke (2005), Barako et al. (2006) and Al-Shammari and Al-Sultan (2010). Haniffa and Cooke (2002) indicated some advantages by using normal scores such as the F and t-tests and regression coefficients become more meaningful thus providing additional confidence and exact statistical properties in statistical results. However, the variables become normally distributed after transformation to the normal score. Table 5.16 shows the skewness and kurtosis value after transformation. In addition, Figures 5.11, 5.12 and 5.13 show the histogram, P-P plot and density estimate for dependent variables indicating normal distribution, especially compared to the previous graphic.

Table 5.16: Skewness and Kurtosis Tests after transformation

	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
CSRDI	468	.001	.113	-.148	.225
CSRDA	468	.034	.113	-.196	.225
GEND	468	1.622	.113	.726	.225
IND	468	1.280	.113	.462	.225
NAT	468	1.079	.113	.036	.225
AGE	468	.661	.113	-.486	.225
AUD	468	1.853	.113	1.507	.225
FAMOB	468	1.799	.113	1.323	.225

Figure 5.11 Histogram of CSR after transformation

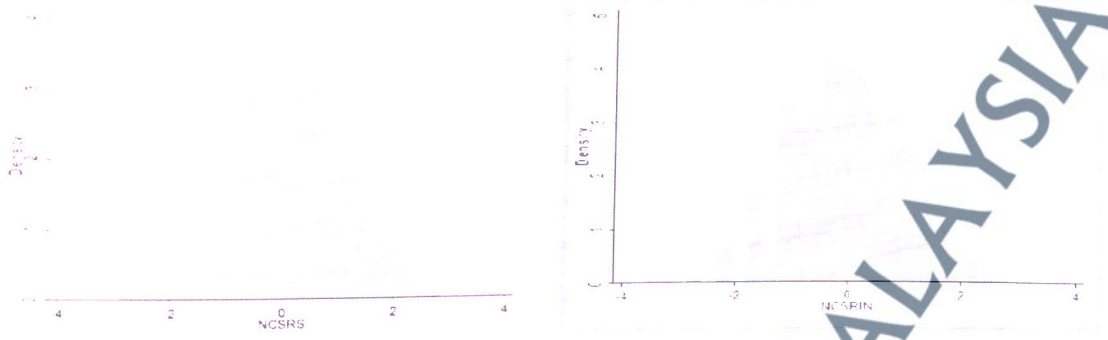


Figure 5.12 P-P plot of CSR after Transformation

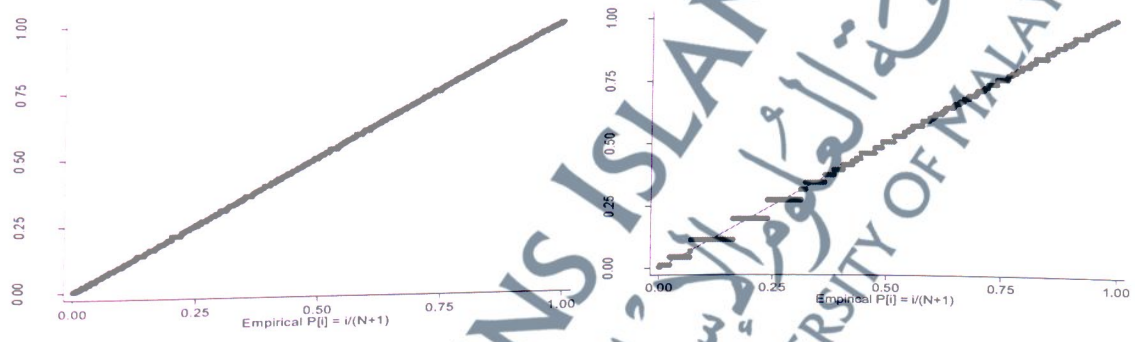
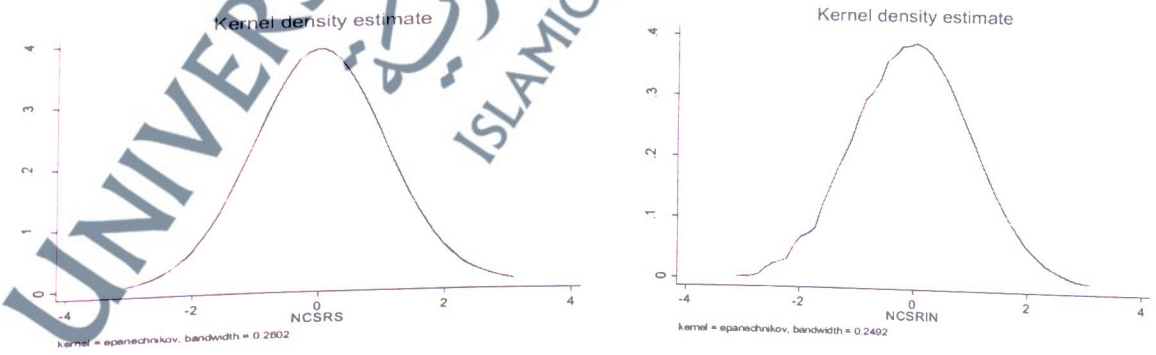


Figure 5.13Density Estimate of CSR after Transformation



5.5.2 Testing for Multicollinearity

As earlier mentioned, multicollinearity occurs when there is a high correlation among two or more independent variables in the regression model. We employed two methods in this study to check for the presence of multicollinearity, namely correlation coefficients matrix and variance inflation factor (VIF). The degree of correlation coefficients should not be more than 0.80, while the VIF value should be less than 10 and coefficients tolerance value more than 0.10, otherwise, it will indicate a high degree of correlation causing multicollinearity. Table 5.17 shows that the Pearson correlation coefficients are less than 0.8 of all the independent variables. This result indicates that all independent variables in this study are free from multicollinearity problems. Table 5.18 shows that the value of VIF for all variables remained below 10 and the highest VIF is 3.27. The table also shows that the values of tolerance were more than 0.100 and the lowest tolerance value is 0.30. This means there is no multicollinearity problems between independent variables in the present study.

Table 5.17 Pearson Correlations

	GEND	IND	NAT	AGE	AUD	FMOB	MD	RODU	SIZ	PRO	BSIZ
GEND	1.0000										
IND	0.0917	1.000									
NAT	-0.0988	0.2594	1.000								
AGE	0.1097	0.0023	0.1009	1.000							
AUD	0.1050	0.7075	0.2417	-0.0099	1.000						
FMOB	-0.0225	-0.0621	-0.0895	0.2694	-0.0243	1.000					
MD	-0.0113	0.0979	0.0717	-0.0378	0.1114	-0.1592	1.000				
RODU	-0.0655	-0.0113	-0.0824	-0.0255	-0.0162	0.2701	-0.3834	1.000			
SIZ	0.0321	0.5365	0.2297	0.0546	0.5945	0.0148	0.0744	0.0602	1.000		
PRO	0.0177	0.0874	-0.0503	-0.1391	0.0822	-0.0500	-0.0361	0.0316	0.2171	1.000	
BSIZ	0.32	0.437	0.193	0.60	0.47	0.122	0.026	0.466	0.558	0.126	1.000

Table 5.18 Tolerance and VIF

Variable	VIF	1/VIF
Audit committee(AUD)	3.27	0.305480
Independent directors(IND)	2.95	0.338409
Firm size(SIZ)	2.14	0.466284
Role duality(RODU)	1.29	0.777784
Multiple directorships(MD)	1.22	0.821569
Family members on the board(FMOB)	1.21	0.827965
Age of directors(AGE)	1.16	0.861466
Nationality of directors(NAT)	1.14	0.874560
Profitability(PROF)	1.11	0.896916
Gender diversity(GEND)	1.06	0.942346
Mean VIF	1.65	

5.5.3 Testing for Linearity

This study uses scatter plots to check for linearity assumption by plotting every independent variable against the dependent variable in order to see how fitted the regression line. As a result of transformation, it can be concluded that the linearity assumption is satisfied, and the liner model is appropriate as shown in Appendix E.

5.5.4 Panel Data Regression Estimations

5.5.4.1 Ordinary Least Squares (OLS) Regression

This section presents the regression results that determine the relationship between independent variables (i.e., independence, age, gender and nationality directors, role duality, multiple directorships, and family members on the board and audit committee), and the dependent variable (i.e., CSR disclosure level). Ordinary Least Squares (OLS) was employed using panel data analysis to test the hypotheses that is related to the impact of board diversity (H1, H2, H3 and H4) and corporate governance mechanism (H5, H6, H7and H8) on the level of CSR reporting. Using STATA statistical software version 11 to run the regressions. The results of panel data regression analysis are shown in Table 5.19 and 5.20.

As earlier discussed, two measures are used to capture the level of CSR disclosure, namely a total number of sentences and disclosure index. Therefore, two separate equations are used to estimate the level of CSR, as shown in following models:

$$CSRDA_{it} = \beta 0 + \beta 1\ IND_{it} + \beta 2\ AGE_{it} + \beta 3\ GEND_{it} + \beta 4\ NAT_{it} + \beta 5\ RODU_{it} + \beta 6MD_{it} + \beta 7FMOB_{it} + \beta 8AUD_{it} + \beta\ 9SIZ_{it} + \beta 10\ PRO_{it} + \varepsilon_{it}$$

$$CSRDI_{it} = \beta 0 + \beta 1\ IND_{it} + \beta 2\ AGE_{it} + \beta 3\ GEND_{it} + \beta 4\ NAT_{it} + \beta 5\ RODU_{it} + \beta 6MD_{it} + \beta 7FMOB_{it} + \beta 8AUD_{it} + \beta\ 9SIZ_{it} + \beta 10\ PRO_{it} + \varepsilon_{it}$$

Table 5.19 Panel Data Analysis Results (CSRDA)

	Pooled OLS		FE Model		RE Model	
	Coef.	P (Sig)	Coef.	P (Sig)	Coef.	P (Sig)
GEND	.2065295	0.000***	.3147013	0.000***	.2821227	0.000***
IND	5533062	0.000***	.2985268	0.000***	.3802957	0.000***
NAT	.1955554	0.000***	.2011403	0.000***	.2208155	0.000***
AGE	-.0103922	0.892	.1080817	0.131	.1068127	0.112
AUD	.1093511	0.002***	.2790758	0.000***	.2186523	0.000***
FMOB	-.1439304	0.003***	-.039938	0.607	-.115952	0.046**
MD	.0580457	0.480	.0703823	0.553	.0841457	0.375
RODU	-.0537217	0.527	-.115249	0.227	-.067086	0.429
SIZ	.4093031	0.000***	.116614	0.111	.3164687	0.000***
PRO	.0034383	0.236	-.001518	0.546	.0001524	0.950
Constant	-3.153118	0.000***	-.98194	0.078*	-2.48715	0.000***
No of observations	468		468		468	
R^2	0.6233		0.5096		0.5959	
F-statistic	75.63		29.82			
P-value (F)	0.0000		0.0000		0.0000	

Note: *** Significant at the 0.01 level ** Significant at the 0.05 level * Significant at the 0.1

Table 5.20 Panel Data Analysis Results (CSRDI)

	Pooled OLS		FE Model		RE Model	
	Coef.	P (Sig)	Coef.	P (Sig)	Coef.	P (Sig)
GEND	.179051	0.000***	.2979141	0.000***	.2551067	0.000***
IND	.549169	0.000***	.3367072	0.000***	.4242318	0.000***
NAT	.1541245	0.000***	.2038788	0.001***	.1976186	0.000***
AGE	.0454137	0.593	.1468128	0.101	.1390937	0.084*
AUD	.1040256	0.008***	.2758513	0.000***	.2014469	0.00***
FMOB	-.182133	0.001***	-.051663	0.594	-.153017	0.020**
MD	-.003976	0.965	.0742549	0.616	.0402369	0.712
RODU	.0585791	0.533	-.095366	0.423	.0031966	0.974
SIZ	.3143455	0.000***	.0287114	0.753	.23724	0.000***
PRO	.0009325	0.772	-.003013	0.337	-.001386	0.635
Constant	-2.40434	0.000***	-.333334	0.631	-1.86717	0.000
No of observations	468		468		468	
R^2	0.5316		0.4163		0.5103	
F-statistic	51.86		20.68			
P-value (F)	0.0000		0.0000		0.0000	

Note: *** Significant at the 0.01 level ** Significant at the 0.05 level * Significant at the 0.1

Table 5.19 and 5.20 shows the panel data regression analysis for three estimation models: pooled OLS, FEM and REM. It can be seen from the tables that the result of the three models seems to be similar for both (CSRDA) and (CSRDI). The R^2 is higher in the first model (CSRDA) where R^2 values for the three methods pooled OLS, FEM and REM respectively were (62%, 51%, and 59.5%) while in the second model (CSRDI) the R^2 values were (%53,%41.6 and %51). In order to identify the

best and appropriate model for the data analysis, the Breusch-Pagan Lagrange multiplier (LM) test and Hausman test were conducted.

1. Breusch-Pagan LM Test for Random Effects Model (REM)

This test was used to discriminate between the pooled OLS and random effects model. The null hypothesis in the LM test assumes that the variances across entities are zero. If the null hypothesis is rejected, then the random effect model is more appropriate and acceptable than the pooled OLS model. Table 5.21 shows a significant p- value for the LM test (Prob>chi2 = 0.000). This means that the p- value is <0.05, and thus the null hypothesis is rejected. This means that the random effects model is more appropriate than the pooled OLS model.

Table 5.21 Result of Lagrangian multiplier test

	chi2	Prob
CSRDA	206.96	0.0000
CSRDI	146.01	0.0000

2. The Hausman test

The Hausman test was carried out to choose between fixed and random effects model. The null hypothesis is that individual effect is uncorrelated with repressors in the model. If the test produces a significant p-value, the null hypothesis is rejected, and then fixed effect is preferred over the random effect. Table 5.22 shows the result of the Hausman test (Prob>chi2 = 0.0000) is significant and less than 5%, therefore, the null hypothesis was rejected, indicating that fixed effect (FEM) is more appropriate

Table 5.22 Result of Hausman test

	chi2	Prob
CSRDA	59.58	0.0000
CSRDI	38.64	0.0000

Based on the results of the above tests, the fixed effect model (FEM) has been chosen as the more appropriate model in this study. It is important to test for the presence of heteroscedasticity and autocorrelation in order to meet the assumptions of regression and to ensure that the data are sufficient and the results are not misleading. Below are the results for both tests:

1. Testing for the presence of autocorrelation

The Wooldridge test is employed to test for the presence of autocorrelation. The null hypothesis is no serial correlation. As can be seen from Table 5.23 the p value (0.000, 0.0076) is found to be significant thus, the null hypothesis of no autocorrelation is rejected, indicating that there is evidence of autocorrelation.

Table 5.23 Result of Wooldridge test for autocorrelation

	F statistic	Prob
CSEDA	27.525	0.0000
CSRDI	7.374	0.0076

2. Testing for the presence of heteroscedasticity

This study used the Modified Wald test to test the presence of heteroskedasticity. The null hypothesis is that the variance of the error is the same for all individuals (homoskdasticity). Table 5.24 shows the results of the Modified Wald test. The p-value is 0.000 (Since the p-value <0.05) the null hypothesis is rejected concluding the presence of heteroskedasticity.

Table 5.24 Result of Modified Wald test for heteroskedasticity

	chi2	Prob
CSRDA	1.405	0.0000
CSRDI	1.906	0.0000

Since the above tests detected the presence of heteroskedasticity and autocorrelation, it is important to overcome these problems. This study used the (cluster) robust standard errors to deal with problems of heteroskedasticity and autocorrelation. Consequently, the regression was repeated with robust standard errors to obtain the final result.

Tables 5.25 and 5.26 present the result of regression analysis for the relationship of board diversity and corporate governance mechanisms with the level of CSR after correcting the problems of heteroskedasticity and autocorrelation by using robust standard errors. The result shows that the overall regression model is statistically significant F(10,116) =16.91, P=0.000 for the corporate social responsibility disclosure amount (CSRDA) and F(10,116) = 22.07, P=0.000 for the corporate social

responsibility disclosure index (CSRDI). The value of R^2 was 0.51 for CSRDA which indicates that almost 51.6% of CSR disclosure level can be explained by the board diversity characteristics of gender, age, independent and nationality of directors) and corporate governance mechanisms (role duality, multiple directorships, family members on the board and audit committee). This R^2 is higher than other studies such a; Barako and Brown (2008), Lim et al. (2008) Said et al. (2009) and Khan (2010) which reported R^2 of 47%, 14.36%, 10.13% and 42.53% respectively. On the other hand, the R^2 for CSRDI was 41.63%.

Table 5.25 Fixed effect Analysis Results with Robust Standard Error(CSRDA)

	Coeff	Robust Std. Error	t	p-value
GEND	.3147013	.0684652	4.60	0.000
IND	.2985268	.0567347	5.26	0.000
NAT	.2011403	.0686309	2.93	0.004
AGE	.1080817	.0709544	1.52	0.130
AUD	.2790758	.0491622	5.68	0.000
FMOB	-.0399383	.0887585	-0.45	0.654
MD	.0703823	.1591491	0.44	0.659
RODU	-.1152495	.0916207	-1.26	0.211
SIZ	.116614	.0800514	1.46	0.148
PRO	-.0015181	.00217	-0.70	0.486
Constant	.98194	.616417	-1.59	0.114
No. of Observations	468			
R^2	0.51			
F Value	16.91			
P-Value (Prob > F)	0.0000			

Table 5.26 Fixed effect Analysis Results with Robust Standard Error (CSRDI)

	Coeff	Robust Std. Error	t	p-value
GEND	.2979141	.0744957	4.00	0.000
IND	.3367072	0825431	4.08	0.000
NAT	.2038788	.076011	2.68	0.008
AGE	.1468128	.1184099	1.24	0.218
AUD	.2758513	.0558609	4.94	0.000
FMOB	-.0516633	.0857906	-0.60	0.548
MD	.0742549	.1975321	0.38	0.708
RODU	-.0953663	.1232896	-0.77	0.441
SIZ	.0287114	.0950489	0.30	0.763
PRO	-.0030132	.0025583	-1.18	0.241
Constant	-.3333341	.7462644	-0.45	0.656
No. of Observations	468			
R^2	0.4163			
F Value	22.07			
P-Value (Prob > F)	0.0000			

Tables 5.25 and 5.26 present the result of the impact of independents variable on the level of CSR disclosure.

1. Gender diversity

The first hypothesis states that companies with a higher proportion of female directors on the board are more likely to have a higher level of CSR. As presented in Tables 5.25 and 5.26, the P values are 0.000 for both CSR measurement, indicating a positive

relationship between female representation on the board and CSR disclosure at the 1% significance level. This result supports the hypothesis, therefore **H1 is accepted.**

2. Age diversity

The findings of data analysis show that there is no significant relationship (p=0.130, 0.218) between young board of directors and CSR reporting. This result did not support the second hypotheses which predict that there is a positive relationship between the young board of directors and CSR. Thus, **H2 is rejected.**

3. Independent directors

The result in Tables 5.25 and 5.26 reveal a significant positive relationship for both CSR measurement (p=0.000) between proportion of independent directors and the level of CSR reporting at the 1% significance level. This finding support the third hypothesis which states that there is a positive relationship between the proportion of independent directors and the level of CSR, therefore **H3 is accepted.**

4. Foreign board members

The fourth hypothesis states that the higher the proportion of foreign nationals on the board, the higher the level of CSR disclosure. As presented in Tables 5.25 and 5.26, the P values 0.004 for CSRDA and the 0.008 for CSRDI which indicate a significant positive association (at the 1% significance level) between foreign board members and the level of CSR reporting, thus **H4 is accepted.**

5. Role duality

Hypothesis H5 expects that there is a negative relationship between CEO duality and the level of CSR. The result from the Tables 5.25 and 5.26 did not show any significant relationship between CEO duality and the level of CSR reporting (p=0.211 for CSRDA and p= 0.441 for CSRDI) thus, the result didn't provide evidence to support this hypothesis. Hence, **hypothesis H5 is rejected**.

6. Multiple directorships

The sixth hypothesis states that there is a significant relationship between multiple directorships and CSR. The results in Tables 5.25 and 5.26 show no statistically significant relationship between multiple directorships and the level of CSR reporting (p=0.659and p=0.708) for CSRDA and CSRDI respectively. Therefore, **hypothesis H6 is rejected.**

7. Family members on the board

The results in Tables 5.25 and 5.26 did not support the seventh hypothesis, which predicted that companies with a high proportion of family members on the board tend to have a negative relationship with CSR. The result shows that p value (p = 0.654 for CSRDA, and p=0.548 for CSRDI), means no significant association between family members on the board and the level of CSR. **Therefore, H7 is rejected.**

8. Audit committee

The results in Tables 5.25 and 5.26 support the eighth hypothesis which states that there is a positive relationship between the number of independent directors sitting on an audit committee and CSR. The result reveal a positive significant (p=0.000 for both CSR measurement) relationship between audit committee and the level of CSR reporting at the 1% significance level. **Therefore, H8 is accepted.**

5.5.4.2 Moderated Multiple Regressions (MMR)

This study employs a moderated hierarchical multiple regression analysis to examine the moderating impact of board size (moderating variables) on the relationship between corporate governance and board diversity (independent variables) and the level of CSR reporting (dependent variable). More specifically, regression analysis was conducted to test hypotheses H9, H10, H11, H12, H13, H14, H15, and H16. However, in order to test moderation effect, Moderated Multiple Regression was conducted consisting of two steps.

In the first step, the dependent variable regressed with the independent variables and moderator variable (without interaction term) as presented in the model (2)

Model 2

$$CSRDI_{it} = \beta0 + \beta1\ IND_{it} + \beta2\ AGE_{it} + \beta3\ GEND_{it} + \beta4\ NAT_{it} + \beta5\ RODU_{it} + \beta6MD_{it} + \beta7FMOB_{it} + \beta8AUD_{it} + \beta9\ BOSIZ_{it} + \varepsilon_{it}$$

$CSRDA_{it} = \beta 0 + \beta 1\ IND_{it} + \beta 2\ AGE_{it} + \beta 3\ GEND_{it} + \beta 4\ NAT_{it} + \beta 5\ RODU_{it} + \beta 6MD_{it} + \beta 7FMOB_{it} + \beta 8AUD_{it} + \beta 9\ BOSIZ_{it} + \varepsilon_{it}$

The second step created new variables by interaction term between moderating and independent variable (independent × moderator variable) and adding to the previous model as show below:

Model 3

$CSRDA_{it} = \beta 0 + \beta 1\ IND_{it} + \beta 2\ AGE_{it} + \beta 3\ GEND_{it} + \beta 4\ NAT_{it} + \beta 5\ RODU_{it} + \beta 6MD_{it} + \beta 7FMOB_{it} + \beta 8AUD_{it} + \mathbf{\beta 9}(IND_{it} * BOSIZ_{it}) + \mathbf{\beta 10}\ (AGE_{it} * BOSIZ_{it}) + \mathbf{\beta 11}\ (GEND_{it} * BOSIZ_{it}) + \mathbf{\beta 12}\ (NAT_{it} * BOSIZ_{it}) + \mathbf{\beta 13}\ (RODU_{it} * BOSIZ_{it}) + \mathbf{\beta 14}\ (MD_{it} * BOSIZ_{it}) + \mathbf{\beta 15}\ (FMOB_{it} * BOSIZ_{it}) + \mathbf{\beta 16}\ (AUD_{it} * BOSIZ_{it}) + \varepsilon_{it}$

$CSRDI_{it} = \beta 0 + \beta 1\ IND_{it} + \beta 2\ AGE_{it} + \beta 3\ GEND_{it} + \beta 4\ NAT_{it} + \beta 5\ RODU_{it} + \beta 6MD_{it} + \beta 7FMOB_{it} + \beta 8AUD_{it} + \mathbf{\beta 9}(IND_{it} * BOSIZ_{it}) + \mathbf{\beta 10}\ (AGE_{it} * BOSIZ_{it}) + \mathbf{\beta 11}\ (GEND_{it} * BOSIZ_{it}) + \mathbf{\beta 12}\ (NAT_{it} * BOSIZ_{it}) + \mathbf{\beta 13}\ (RODU_{it} * BOSIZ_{it}) + \mathbf{\beta 14}\ (MD_{it} * BOSIZ_{it}) + \mathbf{\beta 15}\ (FMOB_{it} * BOSIZ_{it}) + \mathbf{\beta 16}\ (AUD_{it} * BOSIZ_{it}) + \varepsilon_{it}$

The result of regression analysis for models 2 and 3 are presented in Tables 5.27 and 5.28 for both CSR measures.

Table 5.27 Regression Result for Model 2 and Model 3 for CSRDA

	Model2			Model3		
	Pooled OLS	FE Model	RE Model	Pooled OLS	FE Model	RE Model
GEND	.2012698***	.2631027***	.246097***	.3828762***	.3007122**	.3337003***
	(.0431638)	(.0478249)	(.0420937)	(.1406038)	(.1260484)	(.1195284)
IND	.5230948***	.2738083***	.3406045***	.7750274***	.2928761	.4106401**
	(.0615409)	(.0516332)	(.049809)	(.2453551)	(.1890604)	(.1849779)
NAT	.2084158***	.2069056***	.2254427***	.2092314	.475143***	.3950371***
	(.0389425)	(.0477018)	(.0407312)	(.1464305)	(.171727)	(.1450879)
AGE	.0960131***	.2638718***	.1970688***	.0981732	.602495***	.4966022***
	(.035128)	(.0389473)	(.0345686)	(.1329844)	(.1190972)	(.1123359)
AUD	.0851256	.0775744	.1040119	.4842617	.0314134	.1271747
	(.0735876)	(.0693637)	(.0643391)	(.3304259)	(.2757347)	(.2628448)
FMOB	-.134788***	.0054344	-.0769298	.0836593	-.1542141	-.1454442
	(.0472408)	(.0750173)	(.056805)	(.2362456)	(.2512124)	(.2260177)
MD	-.0005226	-.0104056	.0034259	-1.03032***	-.737541***	-.872115***
	(.0822229)	(.1155278)	(.0933631)	(.1594203)	(.21597)	(.1761992)
RODU	-.0625636	-.1300918	-.100286	-1.04233***	-.725985**	-.860102***
	(.0846219)	(.091905)	(.0824454)	(.3620935)	(.3444825)	(.3200132)
BOSIZ	.1356207***	.1127999***	.132557***			
	(.013831)	(.0224342)	(.0166731)			
GEND* BOSIZ				-.0249151	-.0045265	-.0126563
				(.0160431)	(.0152675)	(.0141956)
IND* BOSIZ				-.0302856	-.0018024	-.0075948
				(.0264254)	(.0203588)	(.0198903)
NAT* BOSIZ				.0010266	.0310313	-.018204
				(.0163762)	(.0211511)	(.0170594)
AGE* BOSIZ				-.0028524	-.046838***	-.040703***
				(.0159999)	(.0153469)	(.0141072)
AUD* BOSIZ				-.0285726	.0070422	.0016994
				(.0314693)	(.0261554)	(.0248833)
FMOB* BOSIZ				-.0232836	.0194356	.0106001
				(.0270883)	(.0277827)	(.0254236)

MD* BOSIZ				.129248*** (.0163404)	.096023*** (.0224623)	.1160376*** (.0182179)
RODU* BOSIZ				.1124946*** (.0401196)	0745584** (.04024)	.0927601** (.0365885)
Constant	-1.204711 (.1316257)	-.9958949 (.2024586)	-1.17699 (.1603164)	-.0811757 (.0836554)	-.1114985 (.1048644)	-.142995 (.0982372)
No of observations	468	468	468	468	468	468
R^2	0.62	0.54	0.60	0.62	53	0.59
F-statistic	84.66	37.85		46.41	22.04	
P-value	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Note: *** Significant at the 0.01 level ** Significant at the 0.05 level * Significant at the 0.1 level.
Figures in parentheses represent the standard errors, and without parentheses represent the coefficients

Table 5.28 Regression Result for Model 2 and Model 3 for CSRDI

	Model2			Model3		
	Pooled OLS	FE Model	RE Model	Pooled OLS	FE Model	RE Model
GEND	.1727232*** (.0469201)	.229452*** (.0595361)	.2221079*** (.0493104)	.2747737* (.1520082)	.0793154 (.1595302)	.1667198 (.1436876)
IND	.5124997*** (.0668965)	.3090151*** (.0642768)	.3813671*** (.0599497)	.7690591*** (.2652559)	.3046985 (.2392797)	.4468298** (.2254206)
NAT	.1624888*** (.0423314)	.2130976*** (.0593828)	.1998343*** (.0471901)	.178003 (.1583075)	.2868403 (.2173422)	.2761901 (.1692439)
AGE	.0924636*** (.038185)	.2628176*** (.0484846)	.1835803*** (.040495)	.205485 (.1437708)	.5503925*** (.1507326)	.4433233*** (.1349824)
AUD	.1023098 (.0799915)	.1009148 (.0863492)	.1183246 (.0765212)	.2813859 (.3572269)	.2804848 (.348977)	.271676 (.3177457)
FMOB	-.1763519** (.0513519)	-.0019812 (.0933872)	-.1278855** (.0640088)	-.026215 (.2554076)	-.0374581 (.3179409)	-.1003633 (.2668169)
MD	-.0583041 (.0893783)	-.0218117 (.1438177)	-.0363733 (.1065745)	-1.04395*** (.1723509)	-.813384*** (.2733373)	-.943831*** (.2020643)

RODU	.0406458 (.091986)	-.1022875 (.1144102)	-.0337336 (.0968)	-.4734853 (.391463)	-.6319161 (.435986)	-.65774* (.3821784)
BOSIZ	.1200669*** (.0150346)	.1389786*** (.0279277)	.1312483*** (.0187553)			
GEND *BOSIZ				-.0160292 (.0173443)	.0205111 (.019323)	.0047619 (.0169552)
IND* BOSIZ				-.029846 (.0285688)	-.0004686 (.0257666)	-.0075905 (.0242372)
NAT* BOSIZ				-.0016493 (.0177045)	-.0071197 (.0267693)	-.0071916 (.0196818)
AGE* BOSIZ				-.0160177 (.0172977)	-.039099*** (.0194235)	-.0347456** (.0168231)
AUD* BOSIZ				-.0099713 (.0340217)	-.0159184 (.0331029)	-.0115226 (.0300795)
FMOB *BOSIZ				-.0154163 (.0292854)	.0050701 (.0351625)	-.0007115 (.0301392)
MD* BOSIZ				.125438*** (.0176657)	.106457*** (.0284289)	.1183949*** (.0208566)
RODU *BOSIZ				.0593147 (.0433738)	.0648368 (.0509288)	.07545* (.0434253)
Constant	-1.032623 (.1430803)	-1.211464 (.2520358)	-1.138003 (.179417)	-.0574535 (.0904407)	-.1270214 (.1327191)	-.1028598 (.1097096)
No of observations	468	468	468	468	468	468
R^2	0.55	0.48	0.53	0.55	0.47	0.53
F-statistic	62.23	27.27		34.75	14.84	
P-value	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Note: *** Significant at the 0.01 level ** Significant at the 0.05 level * Significant at the 0.1 level.

Tables 5.27 and 5.28 show the panel data regression analysis for three estimation models: pooled OLS, FEM and REM. In order to identify the best and appropriate model for the data analysis, Breusch-Pagan Lagrange multiplier (LM) test and Hausman test were conducted.

1. Breusch-Pagan LM Test for Random Effects

The Breusch-Pagan LM Test was carried out to choose between pooled OLS model and random effects model. Table 5.29 shows a significant p-value of LM test (Prob>chi2 = 0.000) for both measurements (CSRDA & CSRDI) in models (2) and (3). This means that p- value <0.05, therefore, the null hypothesis is rejected meaning that the random effects model is more appropriate than the pooled OLS model.

Table 5.29 Results of Lagrangian multiplier test

	Model 2		Model 3	
	chi2	**Prob**	**chi2**	**Prob**
CSRDA	237.52	0.0000	222.93	0.0000
CSRDI	165.80	0.0000	154.20	0.0000

2. The Hausman test

The Hausman test was carried out to choose between fixed and random effects model. Table 5.30 shows the result of Hausman test. The p-value is (0.0000) for in model 2 and 3 for CSRDA. While in CSRDI the p value is 0.0022 and 0.0017 for model 2 and 3 respectively. This indicates that all values are significant and less than 5%. Therefore, the null hypothesis was rejected, indicating that the fixed effect method (FEM) is more appropriate.

Table 5.30 Results of Hausman test

	Model 2		Model 3	
	chi2	**Prob**	**chi2**	**Prob**
CSRDA	40.18	0.0000	62.59	0.0000
CSRDI	25.81	0.0022	31.47	0.0017

It is clear from the result of the Lagrangian multiplier test and Hausman test that the FEM is the more appropriate model. It is important to test for the presence of heteroscedasticity and autocorrelation in order to meet the assumptions of regression and to ensure that the data are sufficient and the result are not misleading.

1. Testing for the presence of autocorrelation

The Wooldridge test is use to test for the presence of autocorrelation. As can be seen from Table 5.31, the p – value is (0.000) in model 2 and 3 for CSRDA and 0.0088 and 0.0028 for models 2 and 3 regarding CSRDI respectively. This means that all values

were found to be significant thus, the null hypothesis of no autocorrelation is rejected, indicating that there is evidence of autocorrelation.

Table 5.31 Results of Wooldridge test for autocorrelation

	Model 2		Model 3	
	F statistic	**Prob**	**F statistic**	**Prob**
CSRDA	24.864	0.0000	22.811	0.0000
CSRDI	7.096	0.0088	9.361	0.0028

2. Testing for the presence of heteroscedasticity

The Modified Wald test was employed to test for the presence of heteroskedasticity. Table 5.32 shows the results of the Modified Wald test. The p-value is (0.000) for models 2 and 3 and for both CSR measurements. Since the p-value <0.05 the null hypothesis is rejected concluding the presence of heteroskedasticity.

Table 5.32 Results of Modified Wald test for heteroskedasticity

	Model 2		Model 3	
	chi2	**Prob**	chi2	**Prob**
CSRDA	1.205	0.0000	30916.07	0.0000
CSRDI	7.232	0.0000	6.832	0.0000

As the above test detected the presence of heteroskedasticity and autocorrelation problems, it is important to overcome these problems. To this end, this study used the (cluster) robust standard errors to deal with problems of heteroskedasticity and autocorrelation. Consequently, the regression was repeated with robust standard errors to obtain the final result.

Table 5.33 Regression Result with Robust Standard Error for Model 2 and Model 3 (CSRDA)

	Model2				Model3			
	Coeff	Robust Std. Error	t	p-value	Coeff	Robust Std. Error	t	p-value
GEND	.2631027	.0749087	3.51	0.001	.3007122	.168547	1.78	0.077
IND	.2738083	.0515133	5.32	0.000	.2928761	.218003	1.34	0.182
NAT	.2069056	.0631706	3.28	0.001	.475143	.191183	2.49	0.014
AGE	.0775744	.065927	1.18	0.242	.0314134	.301333	0.10	0.917
AUD	.2638718	.046725	5.65	0.000	602495	.105755	5.70	0.000
FMOB	.0054344	.0859989	0.06	0.950	-.154214	.337646	-0.46	0.649
MD	-.010405	.1638912.	-0.06	0.949	-.737541	.243203	-3.03	0.003
RODU	-.130091	.0868121	-1.50	0.137	-.725985	.362854	-2.00	0.048
BOSIZ	.1127999	.0265189	4.25	0.000				
GEND*BOSIZ					-.004526	.018785	-0.24	0.810
IND*BOSIZ					-.001802	.023457	-0.08	0.939
NAT*BOSIZ					-.031031	.023122	-1.34	0.182
AGE*BOSIZ					.007042	.026859	0.26	0.794
AUD*BOSIZ					.046838	.014581	-3.21	0.002
FMOB*BOSIZ					.019435	.03361	0.58	0.564
MD*BOSIZ					.096023	.026944	3.56	0.001
RODU*BOSIZ					.0745584	.043918	1.70	0.092
Constant	-.995894	.2340351	-4.26	0.000	-.111498	.133627	-0.83	0.406

No of observations	468				468			
R^2	0.54				0.52			
F-statistic	19.86				19.63			
P-value	0.0000				0.0000			

Table 5.34 Regression Result with Robust Standard Error for Model 2 and Model 3 (CSRDI)

	Model2				Model3			
	Coeff	Robust Std. Error	t	p-value	Coeff	Robust Std. Error	t	p-value
GEND	.229452	.0794282	2.89	0.005	.0793154	.198245	0.40	0.690
IND	.3090151	.0748982	4.13	0.000	.3046985	.281254	1.08	0.281
NAT	.2130976	.0735265	2.90	0.004	.2868403	.263539	1.09	0.279
AGE	.1009148	.1029144	0.98	0.329	.2804848	.431885	0.65	0.517
AUD	.2628176	.0537671	4.89	0.000	.5503925	.164941	3.34	0.001
FMOB	-.001981	.0741422	-0.03	0.979	-.037458	290843	-0.13	0.898
MD	-.021811	.2014912	-0.11	0.914	-.813384	.311194	-2.61	0.010
RODU	-.102287	.1122956	-0.91	0.364	-.860102	.393093	-2.19	0.029
BOSIZ	.1389786	.0344805	4.03	0.000				
GEND*BOSIZ					.0205111	.022267	0.92	0.359
IND*BOSIZ					-.000468	.029285	-0.02	0.987
NAT*BOSIZ					-.007119	.029870	-0.24	0.812
AGE*BOSIZ					-.015918	.037824	-0.42	0.675
AUD*BOSIZ					.039099	.020773	-1.88	0.062
FMOB*BOSIZ					.0050701	.032233	0.16	0.875
MD*BOSIZ					.0648368	.072980	0.89	0.003
RODU*BOSIZ					.0927601	.044483	2.09	0.037
Constant	-	.308352	-3.93	0.000	-.127021	.164762	-0.77	0.442

	1.211464							
No of observations	468				468			
R^2	0.48.3				0.47.5			
F-statistic	24.07				14.45			
P-value	0.0000				0.0000			

Tables 5.33 and 5.34 show the results of models 2 and 3 after correcting the problem of heteroskedasticity and autocorrelation. Model 2 examines the association of independent variables and moderated variable with level CSR disclosure, while, model 3 examines the moderating impact of board size on the relationship between corporate independent variables and the level of CSR disclosure.

In term of model 2, Table 5.33 presents the results of CSRDA and shows that (R^2=0.54) which means that 54% of variance in CSR disclosure level is explained by independent and the moderator variable. The table also shows that F(9,116) =19.86, p = .0000 indicating that the models are significant. The result also found a significant and positive relationship between independent directors, woman directors, nationality directors, audit committee, and board size with CSR disclosure at 1% level. On the other hand, no significant relationship was found between age of directors (p=0.242), role duality (p=0.137), family board members (p=0.950), and multiple directorships (p=0.949) with the level of CSR disclosure. A similar result was found for CSRDI where Table 5.34 a shows significant and positive relationship between independent directors, woman directors, nationality directors, audit committee, and board size with CSR disclosure at 1% level. While, no significant relationship was found between age

of directors (p=0.329), role duality (p=0.364), family board members (p=0.979), and multiple directorships (p=0.914) with the level of CSR disclosure.

Table 5.33 also shows the moderating effect result in model 3 for CSRDA. The result shows that (R^2=0.52) F(16,116) =19.63, p = .0000 indicating that the models are significant. The result indicates that only three variables were found to be significant with CSR disclosure, audit * board size was significant and positive at 1% (p= 0.002), multiple directorship * board size at 1% (p=0.001) and role duality * board size at 10 % (p=0.092).

Similarly, Table 5.34 shows the moderating effect result in model 3 for CSRDI. The result shows that (R^2=0.47.5) F=14.45, p = .0000 indicating that the models are significant. The result found a significant relationship between CSR disclosure and (audit * board size) at 10 % (p= 0.062), (multiple directorship * board size) at 1% (p=0.003) and (role duality * board size) at 1% (p=0.037).

Consequently, board size moderates the relationship between audit committee, role duality and multiple directorship with level of CSR reporting. In other words, firms with audit committees, CEO duality and multiple directorship have a more positive effecte on the CSR level with large board size. Therefore, **hypotheses H16, H14** and **H13** are supported. The results fails to find any significant effect of board size on the relationship between other independents variables and CSR level **thus, H9, H10, H11, H12, and H15 are rejected.**

5.6 PAIRED SAMPLE T-TEST

Paired sample t-test was used in order to test whether if there is any significant difference between the levels of CSR disclosure in two groups. The first group pertains to the pre-regulation years of the CG code (2007& 2008) and the second group refers to the post-regulation years of the CG code (2010&2011). As shown in Table 5.35, the results of the test indicated that the p-value is .000 for both CSR measurements, which is less than 0.005. This means that there is a significant difference between the mean level of CSR between the two groups. Thus, the hypothesis 17 is accepted for the paired sample t-test that assumes a significantly difference in the mean values between the two groups. To indicate which mean score was higher, Table 5.35 shows the mean for both groups. For the CSR measure by total number of sentences, the mean for the first group was 89.41 and 63.35 for the second group. With regard to CSR disclosure index, the first group was 0.34 and 0.26 of for the second group .This indicates that there is a significant increase in the level CSR disclosur from the pre- to the post-regulation years. This refers to the a significant role of the corporate governance code in improving the level of CSR disclosure in the annual reports of Jordanian companies

Table 5.35 Result of Paired T-Test

		Mean	Mean Differenc	t	Sig. (2-tailed)
CSRDA	Group(1) pre CGC	89.41	26.06	10.54	0.0000
	Group(2) Post CGC	63.35			
CSRDDI	Group(1) pre CGC	0.34	0.08	9.93	0.0000
	Group(2) Post CGC	0.26			

5.7 INDEPENDENT SAMPLES T-TEST

An independent-samples t-test was conducted to address the third research question in this study to determine if there is any difference on the CSR disclosure level between the first and second market. As can be seen from Table 5.36, the number of observation for the fisrt market were 208 (52 companies), and second market were 260 (65 companies) for all the study period.The hypothesis under this test is that there is a significant difference between the first and second market meaning that the means of CSR disclosure for first market and second market are not equal. If the p-value is less than 0.05, this indicates that there is significant difference between the two groups' means thus supporting the hypothesis.

Based on the results of independent t-Test in Table 5.36, the p value is 0.000<0.05. Since the p value is less than 0.05, the hypothesis is accepted and, it can be concluded that there is a significant difference on CSR level between the first and second market. The result showed that companies listed on the first market have a higher mean score of CSR compared to second market listings as shown in Table 5.36. The mean of CSR measure by total sentences was 100.25 for the first market and 57.28 for the second market. While, the CSR disclosure index was 0.35 for first market and 0.25 for the second market.

Table 5.36 Result of Independent T- test

	Market	N	Mean	Mean Difference	t	Sig. (2-tailed)
CSRDA	1	208	100.25	43	7.454	0.000
	2	260	57.28			
CSRDI	1	208	0.35	0.1	6.612	0.000
	2	260	0.25			

5.8 DISCUSSION

5.8.1 The Level of Corporate Social Responsibility Disclosure in Jordan

This section discusses the level of CSR disclosure practices in Jordanian companies. Two measurements were used to measure the level of CSR disclosure namely, through total number of sentences and disclosure index. The results of the descriptive statistics showed that the level of CSR disclosure (measure total number of sentences) in Jordan is high with a mean of 76.38 sentences compared with the study of Ismail and Ibrahim (2008), which indicated the average number of sentences was 22 in Jordanian companies. Hackston & Milne (1996) found that the average number of sentences in New Zealand companies is 23.4. In the UK, Taha (2010) indicated that the average number of sentence disclosure by UK companies was 102.24 sentences in 2005 and 116.89 sentences in 2006. Jordanian companies pay a lot of attention to items related to employees, specifically, items related to the qualifications and experience of employees. The volume of disclosure for this item is high, sometimes exceeding 75 sentences. The reason for such high disclosure of this item is perhaps because Jordanian companies disclosed such information to comply with the law as well as to enhance the company's image by sending messages to the shareholders and stakeholders that the appointment of board members and top managers is not based on relationships and connections but on qualifications and experience. This initiative is perhaps a response to the high rate of failure among Jordanian companies and their delisting from the ASE due to mismanagement.

Regarding the level of CSR measures by disclosure index, the result indicates that Jordanian listed companies disclosed an average 30% of checklist items which is roughly 11 out of 36 items. This result is acceptable compared to other studies such as Ghazali (2007) who found that the mean CSR disclosure is 25.5% in Malaysia. Barako and Brown (2008) found that Kenyan banks on average disclosed 15% of items. In terms of the number of companies disclosing CSR, the results indicate that almost all Jordanian companies in the sample disclosed some form of CSR information in their annual reports, which is consistent with the findings of many previous studies conducted in other countries such as the UK (Gray et al., 1995), Singapore (Tsang, 1998), Libya (Elmofl, 2009) and Bangladesh (Imam, 2000 & Khan 2010). On other hand, the result is not similar with previous studies in Jordan such as Al-Khadash (2003) who found that 74% of Jordanian companies have some form of social and environmental disclosure in their annual reports. Ismail and Ibrahim (2008) indicated that 85% of Jordanian companies disclose social and environmental information.

A possible explanation for the differences results between these studies and the current study may relate to the numbers of reasons. First, may be due to the small sample size used in prior studies for example, sample size was 46 , 46 and 60 used in the studies of Al-Khadash(2003), Suwaidan et al.(2004), and Ismail and Ibrahim (2008) respectively. Moreover, the sample sizes were selected from only industrial sectors and ignore other sectors such as service sector. Second, the number of disclosure items used by Jordanian previous studies was low for example, only 13 items used as disclosure checklist in the studies of Al-Khadash (2003) and Ismail and Ibrahim (2008). Finally, previous studies did not examine the CSR after

implanting CG code, despite the important role of corporate governance on determining the level of CSR disclosure. Taken the reasons altogether, previous studies may provide an incomplete picture of CSR in Jordanian companies.

Almost all Jordanian companies disclose information related to employee information which includes items required by law such as, information related to providing amount or percentage for salaries, wages, remuneration package/schemes, taxes, and the number of employees.

The level of CSR disclosure in Jordan is increasing over time. The result from the Paired t-test and descriptive statistics indicated that there is a significant increase in the level CSR reporting from the pre (before CG code) - to the post (after CG code) regulation year. This means that Jordanian companies disclosed more social and environmental information in their annual report after implementing the code of corporate governance, reflecting the authority of governance regulations in Jordan and the extent to which Jordanian companies comply with such regulations. This will lead to enhancing transparency and improving information disclosure (Gul and Leung, 2004), thereby increasing the quantity and quality of disclosure in order to address the needs of various stakeholders (Lim et al., 2008; Jo and Harjoto, 2011; Khan et al., 2012). This result is consistent with the study of Damagum and Chima (2013) who found athat Nigerian compaiese tend to disclosed more information after the introduction of CG codes in Nigeria Similarly, Albassam (2014) found a significant increase in voluntary information disclosure after the introduction of CG codes in Saudi Arabia. However, a possible explanation for this result is that CSR in Jordan viewed as integral part of corporate governance codes where, the code itself under Chapter 5 (Disclosure and

Transparency) requires companies to disclose information and policy regarding the local community and the environment. Moreover, the result may refer to significant force of CG code in Jordan to improve CSR disclosure that lead to good governance practices and strengthening corporate governance mechanisms such as independent directors and audit committee However, despite increasing CSR disclosure, it remains relatively slow and small. This is perhaps because such regulations require time to be more effective. Moreover, companies also need time to prepare and comply with such legislative requirements.

The result also indicates that the bank sector in Jordan had the highest CSR disclosure compared to other industrial sectors. This is because banks generally have strict regulatory requirements. For example, in 2000, the Central Bank of Jordan requested all banks in Jordan to comply with the Basel Committee on Banking Supervision (BCBS) requirements on corporate governance and in 2004, the Central Bank of Jordan issued a Bank Directors Handbook of Corporate Governance, which aimed at enhancing the corporate governance of banks in Jordan. Recently, in 2007, the Central Bank of Jordan issued the Corporate Governance Code for banks. Through such initiatives, the banking sector in Jordan complied early with the corporate governance code before other industrial sectors (which started to comply in 2009). It is clear from the annual report of Jordanian banks that all banks in Jordan comply with the CG code and have specific chapters in the annual report related to it and how banks comply with the code.

Regarding CSR categories, disclosure about employee information was found to be the most common theme over the study period in Jordanian companies. This result is similar with many previous studies (Gray et al. 1995; Hackston and Milne, 1996; Abu-Baker & Naser, 2000; Al-Khadash, 2003; Imam, 2000; Thompson and Zakaria, 2004; Ismail and Ibrahim, 2008). Community Involvement disclosure also seems to be an important theme for Jordanian companies. This is similar with the findings of studies conducted in Jordan (Baker & Naser, 2000; Al-Khadash, 2003 and Ismail and Ibrahim, 2008). It can be noticed from the annual reports of Jordanian companies that the majority of companies disclose the same social activities which become a tradition for the companies. These activates are based on the season, for example, in the month of Ramadan, companies provide *Iftar* meals to families in poor areas around Jordan, and provide gifts and *sadaqa* for the needy. Similarly, before school starts, many companies participate in the "Back to School Campaign" which aims to help and support students in Jordan ensure they have all the necessary school supplies. In general, companies prefer to disclose such activities because it gives them the chance to introduce themselves to the society. Tsang (1998) stated that disclosure activities related to community involvement is important and must be reliable because it will attract public attention.

The findings also revealed that Jordanian companies were not concerned about Islamic CSR, which is classified as the lowest theme disclosed over the study period. It is an unexpected result when only one company (Jordan Islamic Bank) discloses information related to this theme. A possible explanation for the unexpected result is because the items included in this theme (*zakat, waqf and Qard al Hassan*) are voluntary in Jordan for example. There is no law requiring companies to pay *zakat,*

and management is not responsible or authorised to pay *zakat* even in Islamic banks because companies in Jordan are owned by many shareholders from different religions and cultures. However, this could happen if the country complies with the *shari'ah* law such as Saudi Arabia or in the case of Malaysia, which has *shari'ah*-compliant and *shari'ah*-approved companies. This result is somewhat in line with the finding of previous studies. For example, Othman and Thani (2010) found that only 1.79 % in 2004 and 2005 and no company in 2006 disclosed information about *zakat* and 1.79%, 3.57% and 3.57% respectively disclosed information about *Qard al Hassan* among Malaysian *shari'ah*-approved companies. Abdullah et al. (2011) found that 15 out of 22 banks paid *zakat in* Indonesian and Malaysian Islamic banks. Rahman et al. (2010) indicated that *zakat* (6.74%) and *Qard al Hasan* (1.8%) had the lowest disclosure in the annual reports of Bank Islam Malaysia Berhad (BIMB) over 14 years.

The lowest items disclosed in this study is *waqf*. No companies disclosed this item including Islamic banks. A possible explanation for this result comes from the board of directors of Islamic banks. They argued that the main concentration in the banks currently situation is *Qard al Hasan* which has become one of the main strategies of Islamic banks. In addition, they argue that *Qard al Hasan* is an instrument used for urgent financing such as medical treatment. As such, *Qard al Hasan* is the most important priority in Islamic CSR. Another possible reason for this result is that *waqf* in Jordan are managed and administrated by the Ministry of *Awqaf* and Islamic Affairs and is governed by specific laws. Therefore, companies may not prefer to practice such activities, which are supervised and managed by the government.

The result also indicates that companies listed on the first market tend to disclosed more CSR information than those in the second market. This finding can be interpreted in the context of a theoretical framework, as larger firms are more likely to disclose more information compared to small companies in order to reduce agency and political costs (Jensen and Meckling, 1976). This result is consistent with the findings of Mohamad et al. (2010) who found a significant difference in disclosure levels between the main and second board of Malaysian companies where, companies listed on the main board disclosed higher information than those in the second board. This result can be interpreted in the context of Jordan where companies listed on first market are more visible to the public because they are mainly consist of relatively large and old firms.

5.8.2 The Relationship between Corporate Governance and Board Diversity Characteristics with the Level of CSR Disclosure.

The results indicated that independent variables influence the level of CSR disclosure. This argument is supported by the findings of the first model where the R^2 was 51.6%. The results also provide evidence that gender diversity has a significant positive association with CSR reporting at 1%, indicating that Jordanian companies with a higher number of women directors led to a higher level of CSR disclosure. This result is consistent with the findings of Barako and Brown (2008), Bear et al. (2010), Bernardi and Threadgill (2010), Post et al. (2011), and Feijoo et al. (2012) who found a positive relationship between female representation on the board and CSR reporting.

The result is in line with resource dependence theory. According to this theory, the board is viewed as an important resource for the firm because it provides critical resources needed by the firm, by linking the firm with its external environment (Hillman and Dalziel, 2003). Accordingly female directors provide valuable resources to the firm by introducing new perspectives and insights to the boardroom (Siciliano , 1996) which enhances the quality of decisions making (Walt and Ingley, 2003; Carter et al., 2003; Burgess and Tharenou, 2002; Huse and Solberg, 2006), promotes greater concerned for the needs of a wide range of stakeholders (Bernardi and Threadgill, 2010; Brammer et al., 2009; Zhang et al., 2012), and generates greater sensitivity to CSR issues (Wang and Coffey, 1992). Therefore, women on boards are more likely than men to disclose CSR to help others and the community, especially minorities and women (Williams, 2003). It is interesting to note from the result that companies with a female director tend to disclose more information related to women such as, the percentage of women employees in the workforce and in various managerial levels, supporting women's empowerment, activities, and campaigns. It is clear that female directors care more about female employees. This view is supported by Brammer et al. (2009) who found that appointing more women on the board will increase the number of women in senior management positions.

The results reveal that there is no significant relationship between young board of directors and CSR disclosure, indicating that young directors in Jordanian companies have no impact on the level of CSR. This result is contradictory to the study conducted by Post et al. (2011) who found that companies with a higher number of young directors on the board have a higher level of social and environmental

disclosure. Similarly, Webb (2004) concluded that socially responsible (SR) companies have more young directors than non-socially SR firms. This is incongruent with resource dependence theory which suggests that young directors provide boards with different perspectives, skills and insights, which enhance a firm's creativity and problem-solving capabilities thus leading to enhanced board performance and decision-making (Ness et al., 2010). However, a reasonable explanation for the insignificant relationship between young board of directors and CSR disclosure may be due to the small proportion of young members (14%) to total number of directors on the board of Jordanian companies.

Another possible explanation for this result is that in Jordanian companies, young directors have less experience compared to older directors and often their position is not secure. They aim to achieve the shareholders goals and interests rather than stakeholders, in order to ensure that his position is secure. There are, however, other possible explanations that may refer to the lack of experience and awareness about CSR for young directors. Sobczak et al. (2006) found that young managers in France believed that companies responsible only for shareholders, and they understand CSR as responsibilities towards employees only. They argued that young directors do not trust voluntary initiatives because they think that the development of CSR may be promoted by regulations only. This could be applies in the Jordanian context, as young directors shows poor experience and less practice thus, they have less ability to meet the interest of diverse stakeholders.

The independent director was found to have a significant positive relationship with level of CSR disclosure. This finding can be interpreted in the context of a theoretical framework. According to agency theory, a higher proportion of independent directors will improve the voluntary disclosure because independent effect the monitoring and control of firm activities (Fama and Jensen, 1983) in addition to helping reduce the cost of voluntary information (Rouf, 2011), reduce the information asymmetry between shareholders and managers, and reduce litigation risk (Matolcsy and Chow, 2007). Consequently, they enhance the comprehensiveness and quality of disclosures (Lim et al, 2008). This result is consistent with the findings of Webb (2004), Htay et al. (2012), Jo and Harjoto (2011), Rouf (2011), Khan (2010), and Mohamed & Faouzi (2014) who provide evidence of significant positive relationships between independent directors and level of CSR. Perhaps, this result is obtained because independent directors in Jordan are more effective in monitoring, because the CG code (under chapter (2), article 1(B)) ensures the independence of independent members, which is the responsibility of the nominations and compensations committee.

Foreign nationals on the board showed a significant positive association with the level of CSR disclosure. This finding is in line with resource dependence theory which suggests that foreign directors, as outside directors, provide more resources such as diverse opinions and perspectives such as language, religion, life experiences, culture, behaviour, and norms which in turn enhances decision-making (Ruigrok et al., 2007) and improves a firm's strategy such as supporting CSR reporting strategies (Ayuso and Argandona, 2007). This result is consistent with the study of Khan (2010) who found a positive relationship between foreign directors and the level of voluntary CSR

disclosure. This result may be explained due to the fact that foreign directors in Jordanian companies usually represent the foreign shareholders. This view can also be observed in the case of emerging markets (Darmadi, 2011). As a result of foreign shareholders, the directors will have incentives to disclose detailed information about CSR in order to reduce agency conflicts (Barako et al., 2006) and to maintain foreign investments (Darus et al., 2009). Ghazali (2007) argued that foreign ownership companies tend to disclose more CSR information in order to show that companies are socially responsible and not concerned only with exploiting the resources of the country. This is because foreign companies are more visible and are more likely to be subject to control by the host government.

With regard to corporate governance mechanisms, the results failed to find a statistically significant relationship between role duality and the level of CSR disclosure. This means that the combination of the chair and CEO positions in Jordanian companies hase no impact on reporting of CSR. This result is inconsistent with the agency theory, which suggests that a combination of the chair and CEO positions will increase agency problems, which in turn lead to less disclosure because they may hide unfavourable information from outsiders in order to achieve their interests (Al Shammari and Al-Sultan, 2010). The result is also not in the line with stewardship theory, which suggests that role duality improve leadership and facilitates decision-making, because they are more knowledge and understanding about the company"s business than an outside director (Lam and Lee, 2008) and there is no information loss between the CEO and the board since there are no conflicts of interest between two roles. However, this finding is consistent with previous studies by Barako et al., (2006), Lim et al. (2008), Buniamin et al. (2008), Said et al. (2009),

Al Arussi et al. (2009), Ienciu (2012), and Abdul Razak and Mustapha (2013). The finding is also contrary to expectations. A possible explanation for this finding is that 17 % of the companies have CEO duality.

Another possible explanation for this finding is that in the case of Jordan, when the CEO and chairman positions are held by the same person, companies become more concerned with the company's daily management and operations rather than disclosing information, specifically CSR. Another possible reason is that board members and CEOs in Jordanian companies believe that they are not responsible in setting the CSR strategy and manage the information disclosure in the annual report. They believe that this responsibility is that of the research and development department.

The results also revealed no relationship between multiple directorships and the level of CSR disclosure. This result is contrary to expectations and is incongruent with resource dependence theory. According to this theory, multiple directorships help firms to link with the external environment and access various resources to secure essential resources needed by them, as they have a diversity of knowledge, experience, and skills derived from personal knowledge from other firms (Haniffa and Cooke, 2005; Ruigrok et al, 2006). These encourage boards to imitate policies and strategies of other companies such as CSR (Darus, 2009), and tend to disclose more social and environmental information since they have a wider social network and links with various stakeholders (Ruigrok et al., 2006). Consequently, more CSR information disclosure is expected in order to preserve their reputation.

This result is inconsistent with the studies of Webb (2004), Haniffa and Cooke (2005), Braam and Borghans (2010) and Courtois, et al.(2011), which found a positive relationship between multiple directorships and the level of CSR disclosure. However, it is consistent with Darus et al. (2009) who found an insignificant relationship to CSR in Malaysian listed companies. A possible explanation for the unexpected result is that multiple directorships are less likely to perform their duties because they are busy. Another possible justification is that multiple directorships in the case of Jordan are appointed based on their authority rather than their education and skill, especially when they have a strong family and political background. Therefore, companies in Jordan prefer to appoint such kinds of directors in order to protect them since they have strong connections with government agencies.

There was no significant relationship between family members on the board and the level of CSR. This finding is inconsistent with agency theory, which suggests that companies with a high concentration of ownership will disclose less information, because the demand for public disclosure will be low (Jensen and Meckling, 1976). Therefore, family controlled companies, which have a high number of family members on the board tend to disclose less information, because they have greater access to internal financial and non-financial information (Chau and Gray, 2010).

This result is contradictory to Haniffa and Cooke (2002), Webb (2004), Darus et al. (2009), Mohamad and Sulong (2010) and Abdullah et al. (2011) who argued that companies with family members on the board disclose less information compared to non-family member boards. This result can be interpreted in the context of Jordan where the family member on the board is in order to keep control of the firm within

the family. Such persons may not be aware of CSR regulations and corporate governance. Another reason behind this result is the percentage of family member on the board to the total number of board members is low with only 6%.

The results provided strong evidence supporting that independent directors sitting on an audit committee have a positive significant association with CSR disclosure at 1%. This finding indicates that a higher proportion of independent members in an audit committee will increase CSR disclosure in Jordanian companies. This result is consistent with the study conducted by Said et al. (2009) who found a positive relationship between the audit committee and CSR in Malaysian companies. Another study conducted by Khan et al. (2012) reported a positive associated between CSR disclosure and Bangladeshi companies. These findings are supported by agency theory which suggests that the presence of independent directors on an audit committee will support the owners in monitoring the managers' activities. Mohamad et al. (2010) argued that a higher percentage of independent directors in an audit committee will improve the quality of information disclosure and they are more likely to disclose CSR information as indicators that the audit committee can ensure the objectivity and reliability of financial reporting (Khan et al., 2012). In Jordan, the audit committee plays an important role to enhance the quality of information disclosure and encourage the company to comply with the laws and regulations stated in the corporate governance code, article (4) under Duties of the Audit Committee section: "Monitoring the company's compliance with Laws and regulations in force, and the requirements of regulatory institutions."

5.8.3 The Moderating Effect of Board Size

The results of moderated multiple regression analysis indicated that the board size has a weak moderating effect on the relationships between the governance and board diversity characteristics with the level of CSR reporting. With respect to board diversity, the result failed to find a moderate effect of board size between women, age, and independent and foreigner directors and CSR level. This means that all board diversity variables were found to be insignificant. The reason for this result is not clear but it seems possibly due to the fact that the proportion of diverse board members is very low on the boards of Jordanian companies. The average number of female board members is 0.027 with 23% of companies having at least one female member on the board, while few companies have three or more women on the board. Schnake et al. (2006) argued that few female directors serving in large boards lead to poor social performance because they have less influence on the board decisions and this is the same for the other board diversity factors. Bear et al. (2010) stated that directors with diverse backgrounds might face challenges when they serve of large boards because their voices may not be easily heard in large groups of directors. Furthermore, under such circumstances, they do not feel free to offer their opinions thereby being rather ineffective on the board. In some cases, they may even be excluded from decision-making discussions (Feijoo et al., 2012). Some researchers have argued that three or more diverse members serving on the boards may be more powerful resulting in better decision making thereby improving CSR disclosure. Post et al. (2011) found that the presence of three or more female directors on a board is positively related with higher environmental reporting. Similarly, Feijoo et al. (2012)

concluded that boards with at least three women are determinant of the quality of CSR reporting.

This result is contrary to expectations where, the finding of this study found a significant positive association beteen female directores and CSR disclosure, and is incongruent with resource dependence theory which suggests that female directors provide valuable resources to the firm by introducing new perspectives and insights to the boardroom (Siciliano , 1996) which enhances the quality of decisions making (Walt and Ingley, 2003; Carter et al., 2003; Burgess and Tharenou, 2002; Huse and Solberg, 2006).

With regards to corporate governance mechanisms, the impact of the moderating effect was found to be more significant compared to board diversity characteristics. The result of moderated multiple regression analysis failed to find the moderating effect between family members on the board and the level of CSR disclosure. This finding is inconsistent with Corbetta and Salvato (2004) who argued that increased board size will reduce family power by increasing the proportion of unaffiliated outsiders and by the CEO as a non-duality which in turn reduces the agency conflict and improves CSR disclosure. This result can be interpreted in the context of Jordan where the companies are owned, managed, and controlled by family members. Therefore, there is no significant difference weather the board is large or small because in Jordan as well as in the Arab world, the board members are selected from family members who usually hold important positions, such as CEO, directors, and chairman, or they select board members who have strong relations with the family in order to keep control of the firm within the family (Al-Shammari and Al-Sultan,

2010). Despite a low percentage of family members on the board with only 6%, they still have a strong voting power because they are not only appoint family members on the board but they select people who have strong relations with the family

The result from this study indicated that board size will reduce the negative effect of CEO duality on the level of CSR disclosure. This means that CEO duality with a larger board size tends to enhance CSR disclose. This result is consistent with agency theory. From an agency perspective, the large board is better able to oversee management by reducing the domination of the CEO on the board (Fauzi1 and Locke, 2012) and lead to disclose more information related to CSR. Gul and Leung (2004) found that association between CEO duality and corporate disclosures enhances and improves when the firm has a large board with a higher proportion of expert outside directors.

The results of the current study also reveals that board size moderates the positive effect of multiple directorships on CSR disclosure. Multiple directorships serving on large boards tend to disclose more CSR information. As a result in Table 5.33, found a negative relationship between multiple directorships and CSR disclosure, this relationship become positive and significant when moderated by board size. This result could be interpreted in that multiple directorships are more effective in large boards rather than in small board because firms with large boards are more concerned about their value and reputation and are not concerned if they are busy, while in small boards, directors may be unwilling to serve on several board committees because they are busy.

Finally, the results indicated that board size also moderates the positive effect of independent directors sitting on an audit committee on the level of CSR disclosure. Independent directors sitting on an audit committee tend to disclose more information when the board size is large. As the board size increases, the representation of outside members including the independent members also increases thereby improving the monitoring function of the board because it increases board independence (Erhardt 2003; Carter et al., 2007). Agency theory suggests that independent directors in an audit committee will support the principals in monitoring the managers' activities (Mohamad and Sulong, 2010) and improve the quality of information flow between the principle and agent (Barako et al., 2006).

5.9 CHAPTER SUMMARY

The aim of this chapter is to present the data analysis and discusses the findings in order to address the research questions in this study. This chapter presented the results of descriptive statistics of CSR disclosure in order to determine the level of CSR disclosure in Jordan over the study period. Panel data analysis employed using fixed effect model with robust standard error. The chapter also presented the three different methods to estimate panel data: pooled ordinary least squares model (pooled OLS), fixed effects models (FEM) and random effects models (REM). A number of tests use in order to identify the best and appropriate model for the data analysis, Breusch-Pagan Lagrange multiplier (LM) test was used to choose between pooled OLS and random effects, while the Hausman test was used to choose between the fixed effects models and random effects models. A diagnostic test was conducted and some tests

were employed before running the regression, i.e. normality test, multicollinearity test and linearity test. Other tests were employed after running the regression including the test of heteroskedasticity and autocorrelation. The study detected the presence of heteroskedasticity and autocorrelation problems, and used the (cluster) robust standard errors to deal with problem. Furthermore, this chapter provided the statistical results of Paired T-Tests in order to test whether if there is any significant difference between the levels of CSR disclosure in two groups. The result indicated that there is a significant increase in the level CSR reporting from the pre- to the post-implementation of the CG code. An independent-sample t-test was conducted to determine if there is any difference on the CSR level between the first market and for the second market. The result found a significant difference on CSR level between first and second market. The summary results of the hypotheses testing related to the impact of board diversity (H1, H2, H3 and H4) and corporate governance mechanism (H5, H6, H7 and H8) on the level of CSR disclosure is provided in Table 5.37. In addition, the summary finding of of the hypotheses H9, H10, H11, H12, H13, H14, H15, and H16 that related to moderating impact of board size on the relationship between corporate governance and board diversity and the level of CSR reporting is presented in Table 5.38. Finally, the summary results of the hypotheses testing related to the diffrnece of CSR disclosure between first and second markets and between pre and the post CG code is presented in Table 5.39

Table 5.37 Summary of the Hypotheses Testing for Model 1

	Hypotheses	Results
H1	Companies with a higher proportion of female directors on the board are more likely to have a higher level of CSR disclosure.	Accepted
H2	There is a positive relationship between the young board of directors and CSR disclosure.	Rejected
H3	There is a positive relationship between the proportion of independent directors and the level of CSR disclosure.	Accepted
H4	The higher the proportion of foreign nationals on the board, the higher the level of CSR disclosure.	Accepted
H5	There is a negative relationship between CEO duality and the level of CSR disclosure	Rejected
H6	There is a positive relationship between multiple directorships and CSR disclosure.	Rejected
H7	Companies with a high proportion of family members on the board tend to have a negative relationship with CSR disclosure.	Rejected
H8	There is a positive relationship between the number of independent directors sitting on an audit committee and CSR disclosure.	Accepted

Table 5.38 Summary of the Hypotheses Testing for Moderating Effects

	Hypotheses	Results
H9	Board size moderates the positive effect of women directors on CSR disclosure.	Rejected
H10	Board size moderates the positive effect of the younger member of the board of directors on CSR disclosure.	Rejected
H11	Board size moderates the positive effect of independent directors on CSR disclosure.	Rejected
H12	Board size moderates the positive effect of foreign directors on CSR disclosure.	Rejected
H13	Board size moderates the positive effect of multiple directorships on CSR disclosure	Accepted
H14	Board size moderates the negative effect of the CEO duality on CSR disclosure	Accepted
H15	Board size moderates the negative effect of family members on the board on CSR disclosure.	Rejected
H16	Board size moderates the positive effect independent directors sitting on an audit committee on CSR disclosure.	Accepted

Table 5.39 Summary of other Hypotheses

H17	There is a significant increase in the level of CSR disclosure from the pre (before CG code) - to the post (after CG code) regulation year in Jordanian listed companies.	Accepted
H18	Companies listed on the first market are more likely to disclose more CSR information than those in the second market.	Accepted