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ANALYSIS OF THE ENVIRONMENTAL CORPORATE SOCIAL RESPONSIBILITY OF HUNGARIAN SMALL AND MEDIUM-SIZED ENTERPRISES IN THE ERA OF CORONAVIRUS

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Environmental protection is a very important segment of our lives. If we do not pay enough attention to it there will be serious problems in the near future. The goal of this study was to present current practices and approaches to environmental aspects of Corporate Social Responsibility (CSR) in the case of some Hungarian small and medium-sized enterprises. During the research a questionnaire survey was conducted. Based on the results, the coronavirus crisis had a significant impact on the environmental activity of Hungarian small and medium-sized enterprises. Small and medium-sized enterprises have been hit hardest by the 1st and 2nd wave of the coronavirus crisis. According to the surveyed data, there is a strong correlation between the coronavirus crisis and the environmental targets. Due to the financial difficulties, Hungarian enterprises had to reduce their budget for supporting environmental protection.

Keywords: Corporate Social Responsibility, environmental sustainability, Hungary, small- and medium-sized enterprises, coronavirus

Introduction

The major industrial development that began in the 19th century was basically based on exploiting the resources more efficiently and maximizing profits. However, in the last third of the 20th century, it became clearer that this path of development leads to unreasonable exploitation of natural resources, and sustainable social and economic development would not be achieved (Strezov, Evans and Evans, 2016; Gerrans and Hutchinson, 2000).

The objectives of responsible corporate leaders are not only competitiveness and compliance with the law but also a long-term success, sustainability, and value creation too (Holmberg, Lundqvist and Robèrt, 2017; Farooq et al., 2020). The most well-known definition of sustainable development is contained in the 1987 United Nations Environment and Development Commission's "Common Future", also known as the Brundtland Report after the Norwegian Prime Minister (Hueting and Leipert, 1990). The definition in the report is "Sustainable development is a development that meets the needs of the present without compromising the ability of future generations to meet their own needs". Many researchers believe that this had been the turning point in the creation of Corporate Social Responsibility (CSR) (Hueting, 1990; Cohen and Winn, 2007).

Corporate Social Responsibility is an attempt to integrate social and environmental objectives on a voluntary basis into their business and to shape their relationships with their stakeholders along with these principles (Rahman and Blake, 2021; Eweje, 2015). According to McKenzie-Mohr et al. (2012), the concept of CSR means that companies voluntarily apply social and environmental aspects in their business and relationships with their partners. CSR means commitment in which the company pursues a voluntary, freely chosen business practice for the well-being of the community, supported by its resources (Li et al., 2021; Warren, 2011).

Despite the fact that CSR costs a lot of money, there are a number of areas where enterprises can benefit. Such an area is the so-called Public Relations, which practically means taking care of corporate reputation, communication with the environment (Kim and Lee, 2019). Thus, through CSR a company is able to consciously form an image that can contribute to buyers and investors to increase their confidence (Gelbmann, 2010). The area of human resources should not be forgotten either, as CSR activities can increase the motivation of employees and thus their performance, which also contributes to the long-term business success of the company (Agarwal, Yadav and Acharya, 2014; Rojek-Nowosielska and Kuźmiński, 2021).

The coronavirus epidemic has shown the fragility of our society and economy, it changed our attitude towards environmental protection as well (Panagiotopoulos, 2021). The coronavirus started in China in 2019 and has now reached almost every country in the world. The coronavirus first appeared as a health problem and then soon proved to have a significant impact on the economy as well. Today, we are talking about the coronavirus as a socio-economic crisis that is having a significant impact not only on our lives now but also on our future lives (Cifuentes-Faura, 2021; Soni, 2020). As a result of the coronavirus, several sectors of the economy have been transformed, some of which have been significantly hit by the coronavirus, such as tourism, and some of which have been less negatively affected by e.g., agriculture and there were some sectors which positively affected, e.g., online commerce.

The spread of the coronavirus could delay environmental efforts for years, according to the report by fifty British environmental organizations, which consider the expected lack of resources for environmental protection and the stalling of ongoing projects to be the most dangerous (Greenfield and Muiruri, 2020). In addition to the negative effects, it should also be said that the coronavirus has had positive benefits for the environment. One such measurable result was a visible improvement in air quality. Due to reduced road traffic, the concentration of some key air pollutants has decreased in many European cities. To understand the extent of this improvement, the EEA monitored the average weekly concentration of nitrogen-dioxide, and in some cities, the concentration was more than 50% lower than in 2019 the same week. Noise pollution from road traffic has also decreased. Lower levels of economic activity are also likely to lead to a reduction in greenhouse gas emissions (European Environment Agency, 2020). However, as economic activity picks up, these improvements are likely to reverse again.

As far as the environmental performance of companies operating in Hungary is concerned, there is an ever-increasing trend, though – in case

of small and medium-sized enterprises (SMEs) – it is far behind expectations. According to Kerekes (2004), this lag is fundamentally based on two reasons: the lack of capital in the SME sector and the low level or lack of environmental awareness. Corporate responsibility is an important tool for social development and environmental sustainability. Nevertheless, we often hear from small and medium-sized business leaders that social responsibility does not fit into the budget (Goto and Sueyoshi, 2020; Hai Hung and Thi Hanh Nguyen, 2020). Entrepreneurs need to believe that they can do it at their own level to reduce the burden on the environment; for example, the use of energy-efficient machines, using energy-saving light sources, the reduction of paper use, the virtualization of servers, the use of modern communication tools or selective waste collection are all steps towards a cleaner future. The main goal of the research was to evaluate how the coronavirus affected the environmental activities of Hungarian small and medium-sized enterprises.

Materials and methods

The main objective of the study was to identify the level of CSR and its environmental aspects in Hungarian small and medium-sized companies in the era of covid-19. The methodology was a questionnaire survey. The data collection was realized between July and September 2021, in person and electronically. The questionnaire consists of 3 parts and a total of 32 questions, including the respondent's personal information, attitude about environmental protection, and understanding of sustainable development. The answer time of the questionnaire was about 25 min. A total of 618 questionnaires was distributed, resulted 387 valid and completed and 231 invalid questionnaires. The sample was collected by using the snowball method. Snowball sampling is where research participants recruit other participants for a study (Naderifar, Goli and Ghaljaie, 2017).

‚Participation in the research was conditional on the company being a small and medium-sized enterprise. Small and medium enterprises (SMEs) are the most common form of enterprises in Hungary. SMEs operate in all sectors of the Hungarian economy: general business, services, manufacturing sector, and the agricultural sector. They represent 99.9% of all businesses and create jobs for 73% of the working population. According to the European Commission, small and medium-sized enterprises (SME) represent 99% of all businesses in the EU. The European definition of SME follows: "The category of micro, small and medium-sized enterprises is made up of enterprises which employ fewer than 250 persons and which have an annual turnover not exceeding 50 million euro, and/or an annual balance sheet total not exceeding 43 million euro".

From the basic characteristics of the respondents (Table 1), the majority were male with their age distribution mostly concentrated between 41 and 50 years old (accounting for 33.6%). Only 10.6% of the respondents are over 51 years old. The respondent's education level is mostly university degree (61.8%), followed by secondary school level (35.7%). Respondents with 8–15 years' work experience accounted for 31.8%, followed by those have 4–7 years' work experience accounting for 28.7%.

Table 1 Characteristics of respondents

Variable	Category	Frequency	Percentage
Gender	female	106	27.4
	male	281	72.6
Age	18–25	42	10.9
	26–30	90	23.3
	31–40	84	21.7
	41–50	130	33.6
	51–65	41	10.6
Education level	primary school	10	2.6
	secondary school	138	35.7
	university	239	61.8
Work experience	1–3 years	59	15.2
	4–7 years	111	28.7
	8–15 years	123	31.8
	more than 15 years	94	24.3

Source: own research, 2021

Results and discussion

Respondents consider CSR important and believe that it should now be essential for a business, regardless of its size. The question of "how important is CSR for your business" answered by the following: more than half of respondents (67 percent) say the CSR is very important to his business, and almost a third of companies say it is important (24 percent), and only 9 percent say the CSR is negligible for their business. CSR consists of several areas; the questionnaire examines the extent to which the particular areas considered by the surveyed companies are important (Figure 1). Among CSR areas the commitment to employees (28 percent) is the most important, followed by responsibility for environmental protection (22 percent), commitment to the community (19 percent), and the least attention got charity and support (17 percent).

Compliance with environmental standards is considered by most respondents (79 percent) to be important. Which area from CSR is the most important from the environmental aspects? For this question, the respondents could choose more than one answer with a Likert scale (1 – very important 5 – unimportant) (Figure 2). Surveyed small- and medium-sized enterprises consider waste recycling (4.3 point) and the use of environmentally friendly materials (3.7) as the most important environmental protection intervention. Then it follows low emission of pollutants (3.5), environmentally friendly production (3.4), and low energy consumption (3.2 point).

The results showed that 71% of respondents were worried that the coronavirus would have a long-term impact on the company. 94 percent of

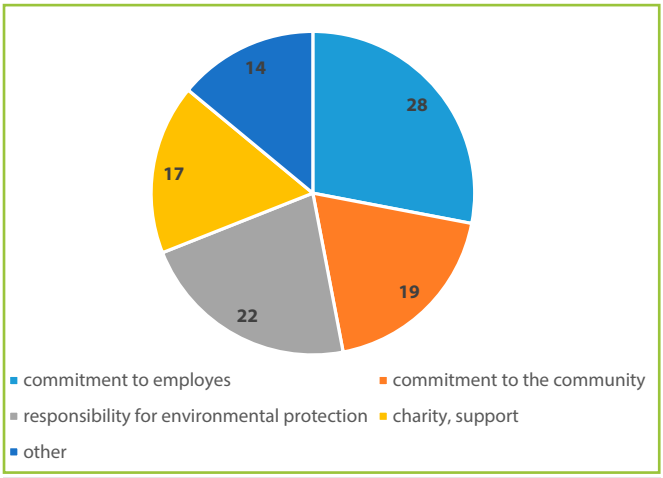

Figure 1 Importance of CSR areas according to respondents (percentage)
Source: own research, 2021

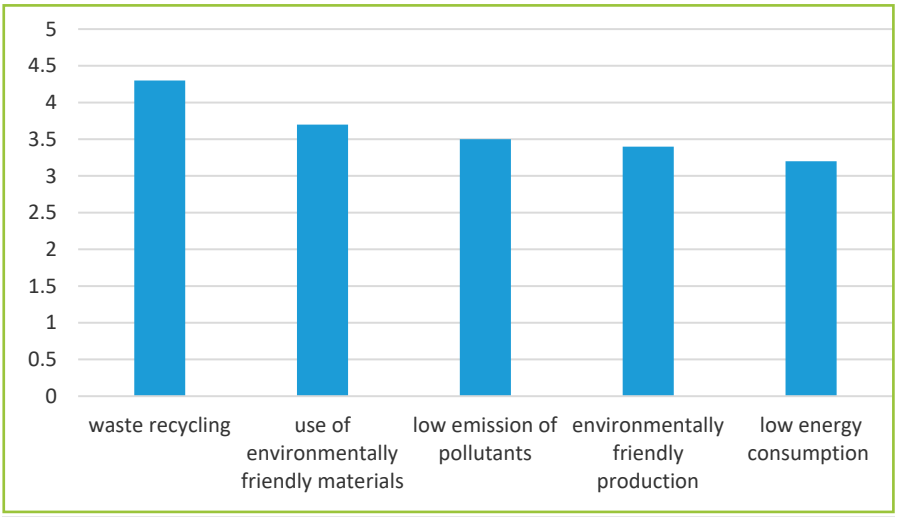

Figure 2 The most important environmental aspects of CSR, Likert-scale
Source: own research, 2021

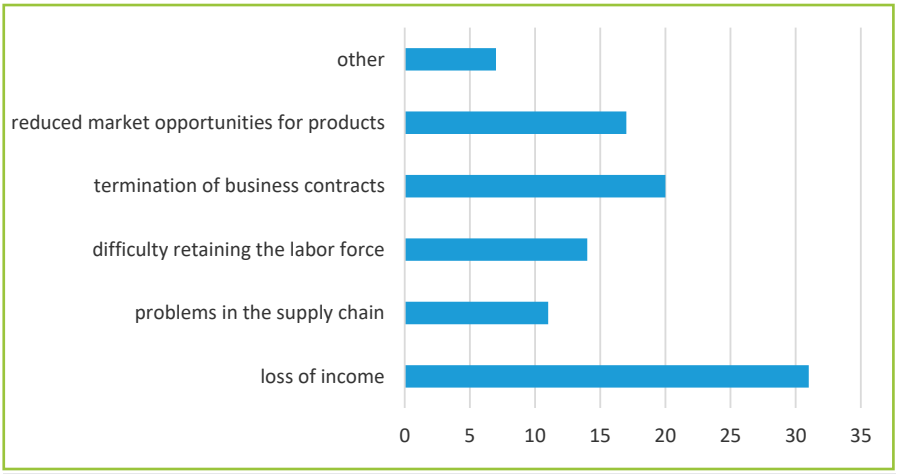

Figure 3 The proportion of areas negatively affected by the coronavirus (percentage)
Source: own research, 2021

Table 2 Rank of crisis management interventions

Variable	Frequency	Rank
Cutting down of investments	341	1
Reduction of environmental expenditures	302	2
Cutting down the community support	288	3
Stopping product innovation	210	4
Stopping workforce development	102	5
Other	85	6

Source: own research, 2021

the small and medium-sized enterprises were negatively affected by the coronavirus crisis, only a very small percentage (6 percent) of surveyed enterprises were not particularly affected by the crisis.

The most significant negative impact was the loss of income (31 percent), followed by termination of business contracts (20 percent), reduced market opportunities for products (17 percent), difficulty retaining the labour force (14 percent), and problems in the supply chain management (11 percent) (Figure 3).

Subsidies received from the government were spent almost entirely on retaining the workforce, leaving very little money to spend on social responsibility. The following table shows, in order of ranking, where the enterprises had to reduce the costs in order to survive the first and second waves of the coronavirus (Table 2). The first was the cutting down of investments (341), followed by the reduction of environmental expenditures (302), cutting down the community support (288), product innovation (210), and workforce development (102). The evaluation of the obtained data showed that the Hungarian small- and medium-sized enterprises had to reduce the costs of environmental protection due to the coronavirus.

To examine the relationship between covid-19 and the variables, was performed a regression analysis. Based on obtained data's, the following hypotheses were made:

H1. There is a significant positive relationship between cutting down of investments and covid-19.

H2. There is a positive relationship between reduction of environmental expenditures and covid-19.

H3. There is a positive relationship between cutting down the community support and covid-19.

H4. There is a positive relationship between stopping product innovation and covid-19.

H5. There is a positive relationship between stopping workforce development and covid-19.

In Table 3, the model summary shows the dependency of variables known as predictors, i.e. cutting down the community support, cutting down of investments, reduction of environmental expenditures, stopping workforce development, and stopping product innovation. All of these factors form the hypothesis of this research, and the study analysed these to find a correlation among these variables.

Table 3 Model summary

Model	R	R Square	Adjusted R square	Std. error of the estimate	Change statistics					Durbin-Watson
					R square change	F change	df1	df2	sig. F change	
1	0.456[a]	0.208	0.197	1.448	0.208	19.966	5	381	0.000	1.877

Source: own research, 2021

a – predictors: (constant), cutting down the community support, cutting down of investments, reduction of environmental expenditures, stopping workforce development, stopping product innovation; b – dependent variable: covid-19

Table 4 ANOVA

Model		Sum of squares	df	Mean square	F	Sig.
1	regression	209.352	5	41.870	19.966	0.000[b]
	residual	798.994	381	2.097		
	total	1,008.346	386			

Source: own research, 2021

a – dependent variable: covid-19; b – predictors: (constant), cutting down the community support, cutting down of investments, reduction of environmental expenditures, stopping workforce development, stopping product innovation

Table 5 Coefficients

Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. error	Beta		
1	(constant)	2.406	0.316		7.609	0.000
	cutting down of investments	0.177	0.041	0.213	4.352	0.000
	stopping product innovation	0.078	0.040	0.097	1.938	0.053
	stopping workforce development	0.102	0.038	0.131	2.689	0.007
	reduction of environmental expenditures	0.148	0.042	0.173	3.527	0.000
	cutting down the community support	0.104	0.049	0.107	2.129	0.034

Source: own research, 2021

a – dependent variable: covid-19

The calculated statistics of R reached 0.456. Therefore, it can be said that there is significant positive relationship between predictors (constant), cutting down the community support, cutting down of investments, reduction of environmental expenditures, stopping workforce development, and stopping product innovation

In Table 4, ANOVA shows the sum of squares, mean square, and level of significance. In this assessment, the dependent variable is covid-19, while the other variables are the predictors.

Table 5 shows the coefficients of correlation, including beta testing, *t*-test, and level of significance. All variables and predictors are included in this calculation.

Based on the obtained results, we accepted all 5 hypotheses, therefore there is a positive relationship between the studied variables (cutting down the community support, cutting down of investments, reduction of environmental expenditures, stopping workforce development, and stopping product innovation) and covid-19.

The analysis showed that the efforts of the small and medium-sized enterprises surveyed to improve sustainable development and environmental protection were negatively affected by the covid-19 crisis. The majority of surveyed enterprises said the coronavirus pandemic as the factor most influencing the future CSR activities of companies. In the current situation, the top priority goal for surveyed enterprises is to survive and to preserve their business. Once over, the coronavirus will need to re-evaluate its CSR strategies in order to meet environmental expectations. Soon, corporate social responsibility will again play an important role, as it will create a win-win situation, bringing benefits to both the company and local communities or other stakeholders (improving corporate image, customer satisfaction, good staff atmosphere, etc.). In my opinion, social responsibility and an environmentally conscious attitude are essential for sustainable development. More and more companies are committed to this issue and clearly demonstrate that market-based and social thinking are compatible.

Conclusions

Companies need to redesign their environmental strategy not only in their own unique situation, but also in their current social and political situation. In corporate social responsibility, companies voluntarily apply social and environmental considerations in their own business and in their relationships with stakeholders.

References

AGARWAL, S. – YADAV, Y. S. – ACHARYA, A. 2014. Impact of CSR-Driven Internal Employee Motivation on Cordiality of Employee Relations. Springer Proceedings in Business and Economics, 2014, pp. 315–325. http://dx.doi.org/10.1007/978-81-322-1979-8_25

CIFUENTES-FAURA, J. 2021. Circular Economy and Sustainability as a Basis for Economic Recovery Post-COVID-19. In Circular Economy and Sustainability, vol. 2, 2021, pp. 1–7. http://dx.doi.org/10.1007/s43615-021-00065-6

COHEN, B. – WINN, M. I. 2007. Market imperfections, opportunity and sustainable entrepreneurship. In Journal of Business Venturing, vol. 22, 2007, no. 1, pp. 29–49. http://dx.doi.org/10.1016/j.jbusvent.2004.12.001

EUROPEAN ENVIRONMENT AGENCY. 2020. Air pollution goes down as Europe takes hard measures to combat coronavirus. Retrieved October 10, 2021, from eea.europa.eu: https://www.eea.europa.eu/highlights/air-pollution-goes-down-as

EWEJE, G. 2015. Emerging Trends in CSR and Sustainability. In Business Strategy and the Environment, vol. 24, 2015, no. 7, pp. 601–603. http://dx.doi.org/10.1002/bse.1891

FAROOQ, Q. – HAO, J. – LIU, X. – XIAO, D. – HAO, Y. 2020. Social and environmental development: Fresh concepts and soft measures towards sustainable development. In Sustainable Development, vol. 28, 2020, no. 6, pp. 1796–1803. http://dx.doi.org/10.1002/sd.2075

GELBMANN, U. 2010. Establishing strategic CSR in SMEs: an Austrian CSR quality seal to substantiate the strategic CSR performance. In Sustainable Development, vol. 18, 2010, no. 2, pp. 90–98. http://dx.doi.org/10.1002/sd.448

GERRANS, P. – HUTCHINSON, B. 2000. Sustainable development and small to medium-sized enterprises: A long way to go. Small and Medium-Sized Enterprises and the Environment: Business Imperatives, 2000, pp. 75–81. ISBN 9781351282840. http://dx.doi.org/10.9774/gleaf.978-1-909493-11-7_7

GOTO, M. – SUEYOSHI, T. 2020. Sustainable development and corporate social responsibility in Japanese manufacturing companies. In Sustainable Development, vol. 28, 2020, no. 4, pp. 844–856. http://dx.doi.org/10.1002/sd.2035

GREENFIELD, P. – MUIRURI, P. 2020. Conservation in crisis: ecotourism collapse threatens communities and wildlife. In The Guardian, 2021. Retrieved October 10 https://www.theguardian.com/environment/2020/may/05/conservation-in-crisis-covid-19-coronavirus-ecotourism-collapse-threatens-communities-and-wildlife-aoe

HAI HUNG, D. – THI HANH NGUYEN, N. 2020. Corporate Social Responsibility for Sustainable Development of Small and Medium Enterprises in Vietnam. In Journal of Business and Economic Development, vol. 5, 2020, no. 3, p. 157. http://dx.doi.org/10.11648/j.jbed.20200503.15

HOLMBERG, J. – LUNDQVIST, U. – ROBÈRT, K.-H. 2017. An approach to sustainable product development relevant to small and medium-sized enterprises. Small and Medium-Sized Enterprises and the Environment. 2017. pp. 158–170. ISBN 9781351282840. doi:10.4324/9781351282840-13

HUETING, R. 1990. The Brundtland report. In Ecological Economics, vol. 2, 1990, no. 2, pp. 109–117. http://dx.doi.org/10.1016/0921-8009(90)90002-c

HUETING, R. – LEIPERT, C. 1990. Economic growth, national income and the blocked choices for the environment. In The Environmentalist, vol. 10, 1990, no. 1, pp. 25–38. http://dx.doi.org/10.1007/bf02239555

KEREKES, S. 2004. A környezetbarát vállalatirányítás eszközei, Budapest : KJK-KERSZÖV Jogi és Üzleti Kiadó Kft, 2004.

KIM, S. – LEE, H. 2019. The Effect of CSR Fit and CSR Authenticity on the Brand Attitude. In Sustainability, vol. 12, 2019, no. 1, p. 275. http://dx.doi.org/10.3390/su12010275

LI, B. – FAN, X. – ÁLVAREZ-OTERO, S. – SIAL, M.S. – COMITE, U. – CHERIAN, J. – VASA, L. 2021. CSR and Workplace Autonomy as Enablers of Workplace Innovation in SMEs through Employees: Extending the Boundary Conditions of Self-Determination Theory. In Sustainability, vol. 13, 2021, no. 11, p. 6104. Available at: https://doi.org/10.3390/su13116104

McKENZIE-MOHR, D. – LEE, N. – SCHULTZ, P. – KOTLER, P. 2012. Social Marketing to Protect the Environment: What Works. SAGE Publications, Inc., 2012. http://dx.doi.org/10.4135/9781483349466

NADERIFAR, M. – GOLI, H. – GHALJAIE, F. 2017. Snowball Sampling: A Purposeful Method of Sampling in Qualitative Research. In Strides in Development of Medical Education, vol. 14, 2017, no. 3.

PANAGIOTOPOULOS, I. 2021. Novel CSR & novel coronavirus: corporate social responsibility inside the frame of coronavirus pandemic in Greece. In International Journal of Corporate Social Responsibility, vol. 6, 2021, no. 1. http://dx.doi.org/10.1186/s40991-021-00065-7

RAHMAN, N. – BLAKE, L. 2021. A review of CSR classification schemes and the operationalization of bolted-on vs. built-in CSR. In Business Ethics, the Environment & Responsibility, vol. 30, 2021, no. 3, pp. 248–261. http://dx.doi.org/10.1111/beer.12345

ROJEK-NOWOSIELSKA, M. – KUŹMIŃSKI, Ł. 2021. CSR Level Versus Employees' Attitudes towards the Environment. In Sustainability, vol. 13, 2021, no. 16, p. 9346. http://dx.doi.org/10.3390/su13169346

SONI, N. 2020. Impact of COVID-19 on Business Organization, Industries and Economy. In SSRN Electronic Journal, 2020. http://dx.doi.org/10.2139/ssrn.3675674

STREZOV, V. – EVANS, A. – EVANS, T.J. 2016. Assessment of the Economic, Social and Environmental Dimensions of the Indicators for Sustainable Development. In Sustainable Development, vol. 25, 2016, no. 3, pp. 242–253. http://dx.doi.org/10.1002/sd.1649

WARREN, R. C. 2011. Why we need a theory of CSR. In Economy of Region, 2011, pp. 197–211. http://dx.doi.org/10.17059/2011-1-26

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