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Free-float Car Sharing Companies in Hungary and a Comparison to Germany



Summary

Car-sharing companies' key argument is the heavily advertised sustainability element in their operation, which can partially be confirmed; however, this study sheds light on the importance of the connection between sustainability reports and financial statements. In order to gain more confidence and provide objective support to voluntary sustainable reports, the key question is if it possible to reconcile these statements to their financial performance and their assets and liabilities. In light of recent market changes in Hungary and the expansion of German car-sharing companies, this is an increasingly important question. Additionally, the study also addresses the significant 2019 market change in Hungary after the penetration of the car-sharing service based in Germany. The reviewed sustainability reports contain insufficient information to be reconciled to financial statements. Additionally, the aspects related to sustainability are recognised through the parent entities' books under environmental liabilities. Each of the reviewed companies considers itself as "the most sustainable entity" in the given segment, which raises serious doubts regarding the reliability of the information. From the perspectives of the basic analysis and profitability, the German companies reported better results than the Hungarian ones; besides, in Hungary, the service providers applied different fleet-financing models and used leases or purchase transactions. The reviewed car-sharing companies seem to operate on profit rather

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than a sustainability basis. Although these services do contribute to a more sustainable future, without proper alignment, the real impacts cannot be validated or traced back to the relevant financial statements. The lack of transparency, as an example of climate-related consequences, could have a significant effect on the companies' performance, and this may be vital and relevant information for investors.

Journal of Economic Literature (JEL) codes: M41, Q56

Keywords: free-float car sharing, financial accounting, sustainability reports, financial accounting, and sustainability reports mapping

INTRODUCTION

The motivation and attitudes of market actors are changing. New models are emerging and manifest vitality (Parragh, 2016). The objective of this study is to examine the most important free-floating car sharing companies in Hungary and compare them to their German counterparts in terms of finances and sustainability. The major Hungarian companies in this business segment are profit-oriented; however, based on their actual financial results they appear to be less profitable than other rental service companies.

As a result of the analysis of the Hungarian companies, it was found that in spite of very similar operations and procedures related to accounting and taxation regulations, certain business advantages may arise from lease accounting differences. The implementation of the new International Financial Reporting Standards (IFRS) 16 (Leases) regulation generates a unique situation in Hungary, where, depending on the applied national or international accounting treatment, these companies might face adverse or favourable business impacts.

In addition, the constantly changing market conditions can generate situations where market significant foreign competitors can enter the Hungarian market from other Member States of the EU. Although Hungary is not a significant market, in the future, it could be an example of the free movement of services within the European Union.

LITERATURE REVIEW

The free-float car sharing business model was categorised, defined and described in a car sharing business model review by Deloitte (2017, p. 2). Since then other studies have also reviewed the model and the markets, including Munoz and Cohen (2018, pp. 116–143). In addition to a market definition, several previous studies had already raised sustainability-related questions about sharing-economy operational models. Harangozó et al. (2018, pp. 172–181) consider sharing economy as a path towards a beyond-growth economy in contrast to the conventional, growth-based economic

model, even though there are more sustainability-related concerns to be considered. Geissinger et al. (2019, pp. 419–429) describe and classify the sustainability implications of sharing economy platforms for Sweden. Bernardi and Diamantini (2018, pp. 30–42) explore integration of the increasing number of cities with a sharing economy into the urban agenda, fostering their positive aspects while avoiding their negative externalities, with a focus on Milan and Seoul. Ma et al. (2018a, pp. 356–365) propose an alternative governance model to improve the effectiveness of a collaborative governance regime towards urban sustainability. Ma et al. (2018b, pp. 942–953) argue that two-tier transformations, triggered by the disruptive innovation of the sharing economy and led by urban transformation towards sustainability, mutually influence one another in the fast-changing urban context in Shanghai. Rietmann and Lieven (2019) examine how policy measures have succeeded to promote electric mobility in 20 countries by measuring the influence of monetary incentives, regulations and charging infrastructure. Varga and Cseh (2019) review Hungarian taxation and its structural changes that will have taken place by the fourth industrial revolution and automation, which will impact – based on the relatively low labour costs and high VAT rates – car industry in Hungary. Hartl et al. (2018) address the gap between B2C and P2P car sharing services from the customers’ perspective. Overall, these studies on free-float car sharing businesses support the initial assumption that these entities are profit-oriented and their operation can be heavily questioned from a sustainability perspective.

Considering the impact of changes in the international lease regulation, a wide range of studies has been published, including Wheeler and Webb (2015) and Barone et al. (2014), who provide summaries of the expected impact of lease capitalisation and its effect on profitability and leverage ratios. Giner and Pardo (2018) review the value relevance of operating lease liabilities. Furthermore, car sharing can increase eco-efficiency and thus improve the environmental performance of the economy (Harangozó, 2008, pp. 27–36), and the rebound effect neutralises a significant share of the benefits achieved.

METHODOLOGY

The business model was analysed on the basis of financial statements. The following elements were reviewed on the basis of the available information:

- Entities registered in Hungary were selected based on their main business activities registered by the Companies Court.
- The profitability review was based on the published financial statements.
- IFRS 16 (Leases) and the Hungarian Accounting Act were compared for certain aspects of lease accounting regulations
- Hungarian and German car sharing companies were compared for fleet size, car sharing costs and registered users.

Sustainability was reviewed based on Penz et al. (2018, pp. 37–54) to explore and explain how, why and when a sustainable lifestyle is adopted, participation in the shar-

ing economy becomes key, and how sharing economy models and sustainability (sustainable sharing economy, SSE) correlate conceptually in the collected articles. Seven sustainability considerations were addressed:

- producing less,
- idle capacity and under-utilised physical assets,
- reducing waste,
- resource efficiency through use rather than ownership,
- extended use pattern,
- low ecological (carbon) footprint,
- owning less, interacting more and building social capital (Penz et al., 2018).

These considerations were selected based on sustainability reports (BMW Group, 2017; Daimler, 2016) and the Hungarian entities were then reviewed according to them.

FREE-FLOAT CAR SHARING COMPANIES' BUSINESS MODELS IN HUNGARY AND IN GERMANY

The specific free-float car sharing service providers are defined by the car sharing service: vehicles can be rented and parked freely throughout the entire business area without having to determine the start and the end of the rental period in advance. The start and end of the rent is for all vehicles via specific smartphone applications. Payment is based on usage and according to a fixed minute rate.

In Hungary every company is required to identify a core business activity upon establishment. The Hungarian classification of activities is “identical and fully harmonised with the European NACE Rev.2. Statistical Classification of Economic Activities in the European Community, 2008 (Nomenclature des activités économiques dans les Communautés européennes). On the basis of Regulation 1893/2006/EC, effective from 1 January 2008, NACE'08 is used to determine the principal activities of enterprises, in the calculation of economic and social indicators and for the publication of statistical data” (HCSO, 2019a).

Car sharing activities specifically related to passenger cars are classified under Section “N” for administrative and support service activities, in division 77, group 77.1 and in class 77.11 “Renting and leasing of cars and light motor vehicles”.

The database of active Hungarian companies contains 362 companies registered with the core activity 77.11. Table 1 shows their distribution according to employee headcounts.

Table 1: Hungarian car sharing businesses engaged in core activity 77.11

1 employee	2-9 employees	Over 10 employees	Total
169 entities	161 entities	32 entities	362 entities

Source: Company register, www.ceginfo.hu

The aim of this analysis is to cover all the operational Hungarian entities that meet at least 1 criterion above the micro-business level. According to the European Commission, a company is a micro-business if it employs less than 10 people; has a turnover of EUR 2M or less or a balance-sheet total of EUR 2M or less (European Commission, 2019). In order not to limit or minimize the reviewed population, all the companies engaged in the activity 77.11 and employing more than 10 persons were surveyed.

The selected companies' financial statements were reviewed, and based on their annual disclosures, further 5 entities were removed, as their actual business activities were only related to car rental but the core activities were transportation, education or the sale of car parts.

At the time this study was compiled, the latest available financial statements were related to the fiscal year 2017. The diluted population of a total of 28 entities is presented in Table 2.

Table 2: Companies engaged in NACE 77.11 "Renting leasing of cars and light motor vehicles" as a core activity and employing more than 10 people in Hungary

#	Company name	Registered address	Year of est.	Empl.	HUF '000'		Profit %	Core activity
					Revenue 2017	PBT 2017		
1	ALD Automotive Magyarország Autópark-kezelő és Finanszírozó Kft.	Budapest	2001	108	16,471,970	1,108,227	6.73%	Lease
2	ARVAL Magyarország Járműparkkezelő Kft.	Budapest	2002	46	9,598,635	976,847	10.18%	Lease
3	AUTO ReFAIRent Autókölcsönző és Szolgáltató Kft.	Vecsés	2010	52	1,733,054	158,709	9.16%	Car rental
4	AVALON Car(e) Services Kft.	Budapest	1989	24	371,938	29,593	7.96%	Car rental
5	BÉR-ELEK Flotta és Autópark Kezelő Kft.	Budapest	2007	25	1,612,429	99,194	6.15%	Car rental
6	Business Lease Hungary Kereskedelmi és Szolgáltató Kft.	Budapest	2003	29	5,351,868	376,017	7.03%	Lease
7	EuRent Autókölcsönző Kft.	Budapest	1989	59	3,218,105	65,175	2.03%	Car rental
8	EuroFleet Gépjármű Flottakezelő Zrt.	Tényő	2008	34	2,207,047	332,127	15.05%	Lease
9	Euroleasing Kereskedelmi Szolgáltató Kft.	Budapest	1995	56	561,959	3,304	0.59%	Lease
10	GAS-CAR Gépjármű-kölcsönző, Autópark-kezelő és Szolgáltató Kft.	Siófok	1994	56	1,044,191	11,304	1.08%	Car rental

#	Company name	Registered address	Year of est.	Empl.	HUF '000'		Profit %	Core activity
					Revenue 2017	PBT 2017		
11	GreenGo Car Europe Kft.	Budapest	2014	20	110,788	-158,291	-142.88%	Free-float car share
12	HARUM INVESTMENT Gépjármű Üzemeltető Zrt.	Budapest	1999	12	1,128,502	4,402	0.39%	Car fleet provision
13	IVANICS Autóparkkezelő Kereskedelmi és Szolgáltató Kft.	Nadap	2005	14	3,283,259	68,525	2.09%	Car fleet provision
14	KÉSZ&GO Flotta és Gépjárműkezelő Kft.	Kecskemét	1993	13	1,195,742	39,497	3.30%	Car fleet provision
15	LAFUT Service Kereskedelmi és Szolgáltató Kft.	Miskolc	2015	22	74,246	722	0.97%	Car rental
16	LeasePlan Hungária Gépjárműpark Kezelő és Finanszírozó Zrt.	Budapest	1994	95	22,451,936	2,082,167	9.27%	Lease
17	Mercarius Flottakezelő Kft.	Budapest	1996	81	4,539,377	767,564	16.91%	Lease
18	Mercur Rent a Car Autókölcsönző és Szolgáltató Kft.	Vecses	1995	80	5,498,329	291,926	5.31%	Car rental
19	Mobil Credit Kereskedelmi Kft.	Debrecen	2000	14	1,272,146	116,266	9.14%	Car fleet provision
20	MOL Limitless Mobility Kft.	Budapest	2017	32	0	-69,543	N/A	Free-float car share
21	NELSON FLOTTALÍZING Eszközbeadó és Autóparkkezelő Kft.	Székesfehérvár	1992	38	2,917,894	139,365	4.78%	Lease
22	Otokoc Hungary Autókölcsönző és Szolgáltató Kft.	Budapest	2015	29	2,031,185	-24,873	-1.22%	Car rental
23	Porsche Lizing és Szolgáltató Kft.	Budapest	1993	54	29,728,668	1,047,108	3.52%	Lease
24	Rapid Rent Autó Kereskedelmi és Szolgáltató Kft.	Budapest	2011	25	529,054	1,067	0.20%	Lease

#	Company name	Registered address	Year of est.	Empl.	HUF '000'		Profit %	Core activity
					Revenue 2017	PBT 2017		
25	RELEASE Zrt.	Budapest	2009	19	592,100	41,393	6.99%	Lease
26	UniCredit Leasing Kereskedelmi Kft.	Budapest	1995	24	1,206,524	-162,445	-13.46%	Lease
27	VR Transport and Rental Kft.	Csömör	2017	10	45,974	6,089	13.24%	Car rental
28	ZENIT-AUTO RENT Szolgáltató és Kereskedelmi Kft.	Miskolc	2017	14	177,215	10,350	5.84%	Car rental

Source: www.ceginfo.hu

Table 2 reveals that only two of the 28 companies (#11 GreenGo Car Europe Kft., hereinafter: GreenGo, and #20 MOL Limitless Mobility Kft., hereinafter: MOL Limo) are the genuine free-float car sharing companies. Both of the two free-float car sharing companies are operated in Budapest.

Based on their financial statements, the total and average revenues and profits of these companies are presented in Table 3.

Table 3: Total and average revenues and profit of companies engaged in the NACE 77.11 core activity and employing at least 10 people in Hungary

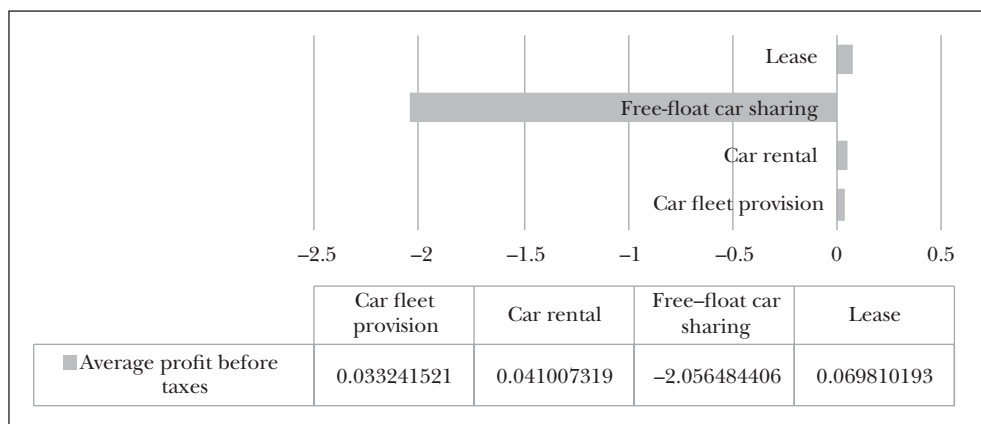
Core activity	Number of entities	HUF '000'			
		Total revenue 2017	Average revenue 2017	Total PBT (Profit before tax) 2017	Average PBT 2017
Free-float car sharing	2	110,788	55,394	-227,834	-113,917
Car fleet provision	4	6,879,649	1,719,912	228,690	57,173
Car rental provision	10	15,806,666	1,580,667	648,189	64,819
Lease	12	96,157,032	8,013,086	6,712,741	559,395
Total	28	118,954,135	4,248,362	7,361,786	262,921

Source: www.ceginfo.hu

In 2017 these companies recognised a total revenue of HUF 118.9 billion (EUR 384.7 million)¹. This does not represent the total lease market, as there are also companies engaged in financial lease as their core activity but are classified in different statistical segments, e.g. section K for “Financial and insurance activities”. It does, however, represent all the free-float car sharing companies, because this specific service is classified in the single activity 77.11 and no other companies provide free-float

car sharing service as a secondary activity. It can be concluded that in 2017 HUF 110.7 million (EUR 358.3 thousand) was realised in the free-float car sharing market in Hungary.

Chart 1: Average PBT / Average revenue in 2017 per core activity of the reviewed population



Source: Tóth and Szigeti, 2019, p. 172, www.ceginfo.hu

The aim of this part of the study is to present and analyse their operational models in Hungary and compare them to the business models of Europe’s biggest market providers active in Germany (Car2Go, DriveNow). The three key areas of the financial review were as follows:

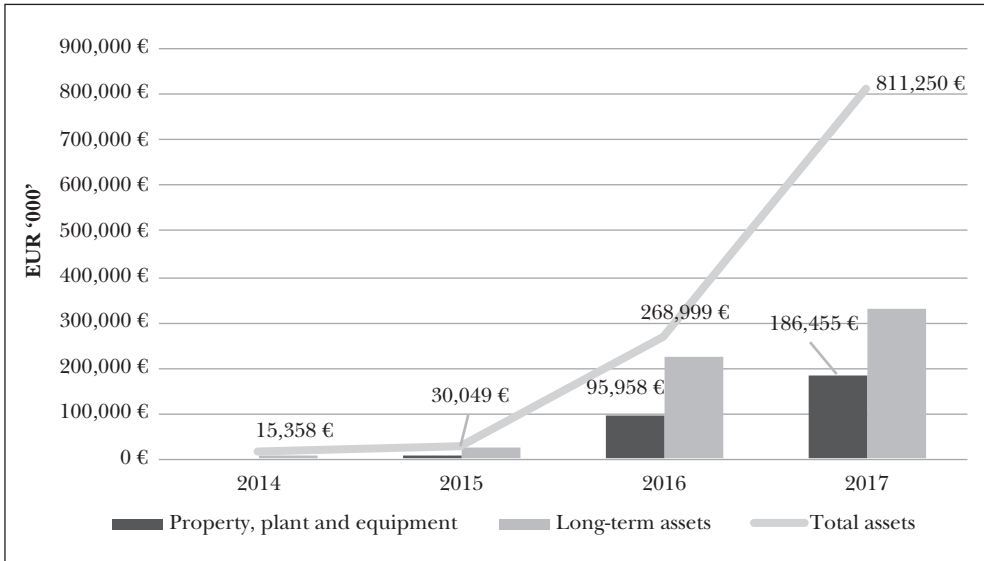
- a) Analysis of the financial statements and review of the financing model
- b) Differences in lease accounting
- c) Comparison to German companies

ANALYSIS OF FINANCIAL STATEMENTS AND REVIEW OF THE FINANCING MODEL

GreenGo was established in 2014 as the first company in this business segment of the Hungarian market, and up to 2017 it remained practically the only market participant without any major competitor in the free-float car sharing segment. Chart 2 gives a summary of the company’s balance sheet items for the period between 2014 and 2017.

GreenGo’s asset structure: The long-term asset value increased from HUF 69M (2016) to HUF 102M (2017), comprising intangible assets worth HUF 43M, tangible assets worth HUF 58M, and other investments in the value of HUF 1M. This breakdown provides important information in light of the data published in January 2018, as GreenGo reported 168 available cars, which should be recognised in the value of property, plant and equipment (hereinafter: PPE) if they owned those assets. There was no available public information on any further breakdown, but it is easy to explain

Chart 2: Changes in the asset structure, GreenGo (2014–2017)



Source: www.ebeszamolo.im.gov.hu

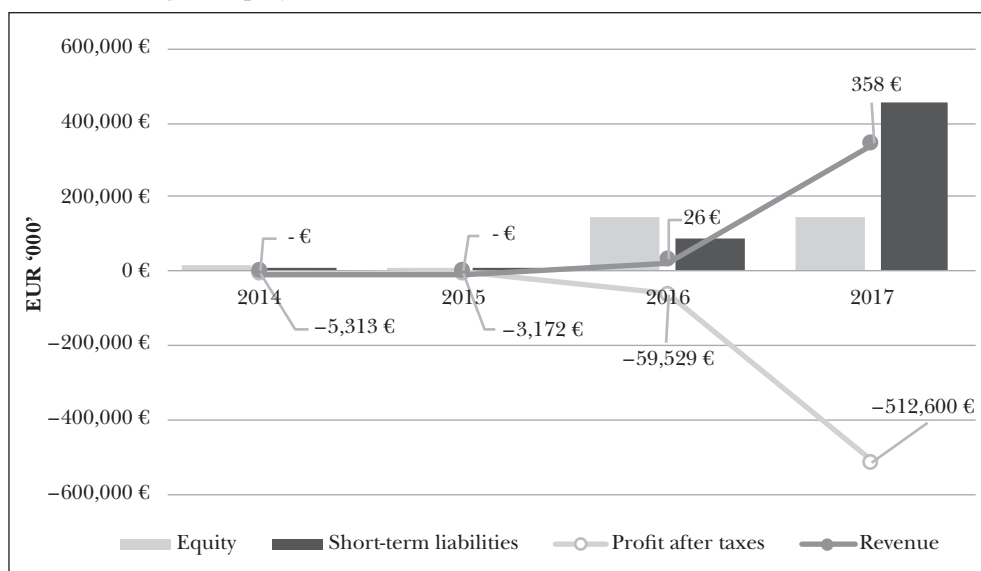
the PPE value even if it only includes cars: the result is HUF 57.8M / 168 vehicles = HUF 0.34M (approx. EUR 1060) for the value of a car, highly unreasonable. This means that the company applied operating leases and thus these assets constitute off-balance sheet items.

GreenGo liabilities and equity: The equity remained broadly unchanged over the past two years at around HUF 43M, however, the generated loss increased significantly from HUF -18M to HUF -158M, which was offset by equity contribution from the owners. Further analysis is performed based on the profit and loss statement to identify the potential reasons for the significantly increasing loss. The debt-to-equity ratio also significantly decreased in relation to an increase in liabilities by HUF 129.3M. This seems to be financed mainly from short-term shareholder loans in a value of HUF 115M and from long-term related-party loans worth HUF 16M. Chart 3 sums up the P/L statement of GreenGo for the period between 2014 and 2017.

GreenGo profit and loss statement: The realised revenue increased from HUF 8M in 2016 to HUF 111M in 2017, while expenses increased from HUF 27M to HUF 275M in the same period. This was the key reason for the decrease in the P/L from HUF -18M to HUF -158M. Based on this data, this company did not generate sufficient revenue to compensate the increased value of material expenditures.

GreenGo got into a significantly worse position in 2017, the year when MOL Limo entered the market. Mention must be made of the fact that the owners of GreenGo include private investors and a leasing company, while MOL Limo is owned by the Hungarian Oil- and Gas Company, which is a listed entity. Table 4 gives a comparison between the profit and loss statements of these two entities for 2017.

Chart 3: Changes in equity, ST liabilities and main income items, GreenGo (2014–2017)



Source: www.ebeszamolo.im.gov.hu

Table 4: Comparison of the profit and loss statement for MOL Limo and GreenGo (2017)

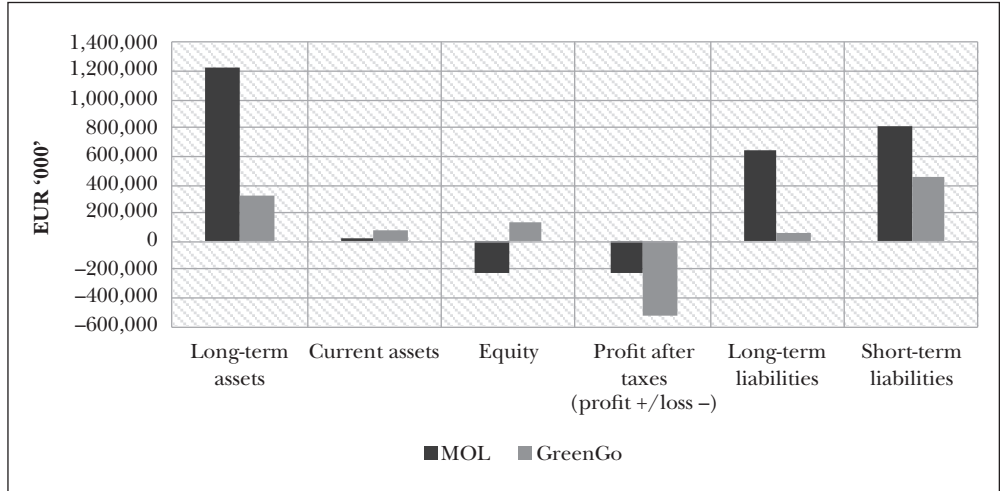
2017 Statement of profit or loss and other comprehensive income (EUR)	MOL Limo	GreenGo
Revenue	0	374,391
Material expenditures	12,435	677,826
Personal expenditures	1,103	90,262
Other expenditures	201,975	90,812
Total operating expenditures	215,512	858,900
Results from operation (profit + / loss -) (EBIT)	-215,512	-484,509
Financial incomes	731	4007
Financial expenditures	1,012	31,415
Results from financial activities (profit + / loss -)	-9,392	-27,408
Profit before taxes (profit + / loss -)	-224,904	-511,918
Current taxes	0	682
Profit after taxes (profit + / loss-)	-224,904	-512,600

Source: www.ebeszamolo.im.gov.hu

It is an important fact that MOL Limo had no revenue in 2017 and therefore it could not cause the poor performance of GreenGo. On the other hand, already in the first year of its operation, MOL Limo generated a significantly higher loss than

GreenGo, although it is based on the larger scale of operation, also visible in a comparison of the assets and liabilities of the two companies in Chart 4.

Chart 4: Comparison of the statements of financial position for MOL Limo and GreenGo (2017)



Source: www.ebeszamolo.im.gov.hu

MOL Limo's assets value is considerably higher already before the start of operation. This is due to the fact that the company's fleet is recognised in the balance sheet, revealing a specific difference in lease accounting: MOL Limo prepares its financial statements according to IFRS, while GreenGo prepares simplified and unaudited financial statements. In addition, MOL Limo's owner needed to fund the generated loss already in 2017, as the total value of the equity was lost.

In terms of operation, it is important to mention that GreenGo only uses electric vehicles in the fleet in contrast to MOL Limo, which had 100 electric cars out of 400 in January 2019. In January 2019 GreenGo announced that it intended to increase the number of its cars to 300 within the foreseeable near future. Assuming this has been accomplished, these two companies run approx. 10% out of the roughly 4000 registered electric cars in Hungary. Additional information from February 2019 is presented in the Table 5.

Table 5: Registered users, fleet size and costs data for MOL Limo and GreenGo (2019)

Description	GreenGo	MOL Limo
Number of registered users	30–40,000	40,000
Fleet size	300 electric vehicles	100 electric vehicles 350 petrol vehicles
Costs	from 65 Ft/min	from 66 Ft/min






Source: www.greengo.hu, www.mollimo.hu

DIFFERENCES IN LEASE ACCOUNTING

Act C of 2000 (Accounting Act) and the International Financial Reporting Standards (hereinafter: IFRS) define lease differently. In Hungary financial lease is distinguished from operating lease on the basis of the formal ownership change. In contrast, IFRS defines it as a substance over form and a principle-based standard.

Table 6 shows the key fundamental differences between Hungary's Accounting Act and IFRS regarding operating leases not recorded in the balance sheet. Another difference concerns disclosure requirements, as the Accounting Act allows the recognition of operating lease in the profit and loss statement with periodically invoiced lease fees.

Table 6: Operating lease accounting in the Hungarian Accounting Act and in IFRS 16, from the lessee's perspective

Description	Hungarian Accounting Act		IFRS 16
	Finance leases	Operating leases	All leases
Assets		–	
Liabilities		–	
Off-balance sheet rights / obligations	–		–

Source: Author's comparison of the Hungarian Accounting Act and the IFRS 16 regulation

The principal aim of IFRS 16 is to have operating leases recognised as committed rights (rights of use – hereinafter ROU) among assets and committed liabilities to reduce the value of off-balance sheet items. For the entities reporting under the Accounting Act, this is not a requirement and, for instance, in the case of an independent financial analysis or a creditworthiness test, they may be invisible.

In Hungary approx. 90% of the vehicles used by car sharing companies are financed through operating lease. Consequently, the distinction between balance-sheet and off-balance sheet presentation may be significant for a creditor or for a financial analysis.

Reporting under the Accounting Act, GreenGo recognises operating leases as off-balance sheet items and thus may have a business advantage from a presentation perspective because the leverage ratio does not show the total minimum of liabilities from lease obligations.

COMPARISON TO GERMAN ENTITIES

In order to present Hungarian car sharing companies in a proper context, they were compared to the top two German market participants car2go and DriveNow. Germany has the biggest car-sharing market in Europe and these entities present lead-

ing examples. In the German industry 17 companies were found to contribute their services to the car-sharing segment. Nine of them were included in this survey as they had more than 10 thousand registered users. The following table shows the size of these companies on the basis of their annual financial data. These numbers include total assets, equity, income after taxes, revenue, and the annual cash-flow. As clearly seen, the two biggest companies, car2go and DriveNow, contributed more than 80% of the accumulated total assets and equity year by year. At the same time, note that these 2 companies were loss-making in the period reviewed (2014–2017). In contrast, 6 out of the 7 smaller firms were profitable. Note that the two biggest companies are currently merging and investing in their infrastructure, so their annual losses are being justified.

Table 7: Key data of German free-float car sharing companies

Company name	Registered users	Fleet size	Cities
SHARE NOW (Car2Go Europe GmbH & DriveNow GmbH & Co. KG)	3,000,000	7400	7
Flinkster (Deutsche Bahn AG)	315,000	4000	300
Cambio Hamburg CarSharing GmbH	77,000	1600	22
StadtMobil CarSharing AG Stuttgart	63,000	2600	100
book-n-drive mobilitatssysteme GmbH	43,000	1015	14
teilAuto (Mobility Center GmbH)	35,000	1000	19
StattAuto eG München	13,000	450	1
Greenwheels GmbH	10,000	300	22

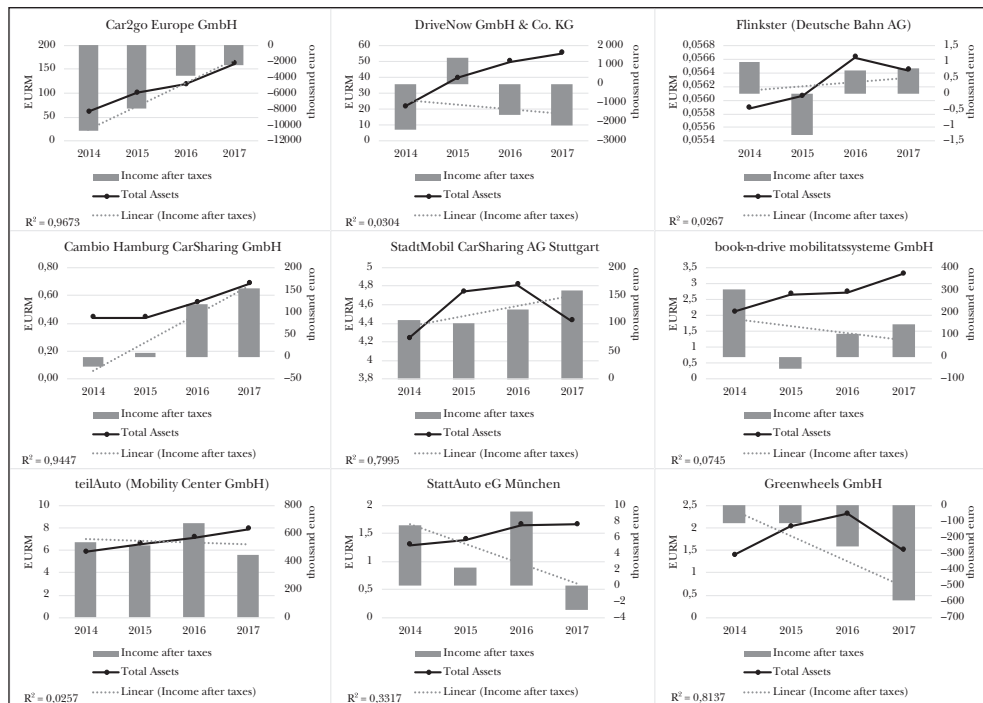
Source: www.carsharing-news.de/carsharing-anbieter/

Development in the income after taxes and in the total assets were also analysed to assess the growth intensity and potential of the businesses. The following table lists companies in a descending order, based on the number of their registered users. It is clear that 6 of 9 companies show upward trends in their total assets, and 4 of them in their income after taxes. The 2 big companies have and will continue to have the largest share in the German car-sharing sector in the not so far future, while others like Stadtmobil, Stattauto München will be have to rely on local communities to supply them etc.

In 2017 the parent companies of both car2go and DriveNow decided to change the previous reporting practice. Since then car2go has been reporting in Daimler's consolidated financial statements and DriveNow in BMW's consolidated financial statements.

In 2016 car2go had considerably better results: an increase from an almost EUR 7.96M loss to EUR 3.8M. On a gross level, its operating profit also improved from EUR 2.6M to EUR 3.1M, which is consistent with increase in the revenue from sales activities.

Chart 5: Income after taxes (left axis) and total assets (right axis) of analysed German entities



Source: www.bundesanzeiger.de

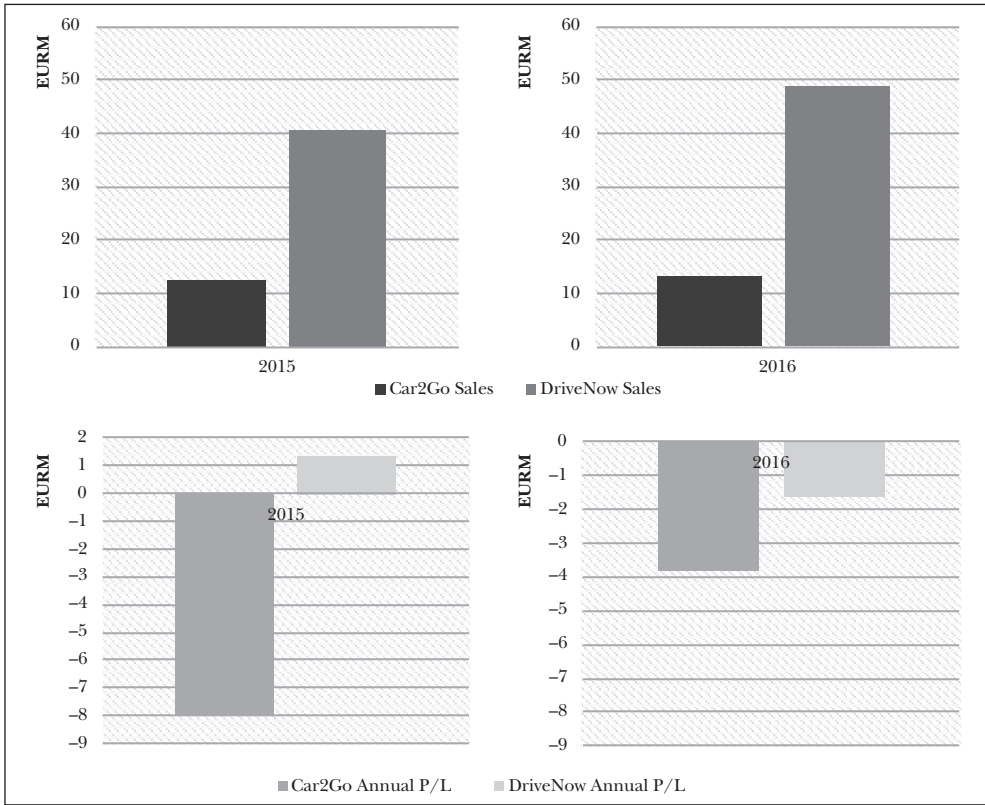
As of 31 December, 2016, the fleet of car2go contained 6754 vehicles, including 5900 smart ForTwo cars, 951 powered by battery. In addition, the fleets run by subsidiaries included 854 Mercedes-Benz vehicles.

DriveNow reported a loss of EUR 1.6M in 2016 compared to the previous year's EUR 1.3M profit. The report shows a significant increase in the fleet caused a rapid rise in lease costs from EUR 32.8M to EUR 41.5M. If such an increase had happened in 2016, the results and the lease costs would have increased in line with the sales increase (19.7%), representing only a total of EUR 39.3M, EUR 2.2M less expenses with approx. EUR 0.6M as the annual profit.

In 2016 DriveNow offered a total of 5400 BMW and MINI brand vehicles in eleven cities (3150 of them in Germany). This is to say in 2016 the fleet size was 35% larger than in the previous year (2015: 4000 vehicles).

Note that in agreement with the current market trend, in 2018 Daimler and BMW set aside their competition and released news of an agreement for cooperation in development and cost management. Such an agreement could serve as an example to follow in Hungary.

Chart 6: car2Go and DriveNow, sales and annual reports, 2015–2016



Source: www.bundesanzeiger.de

CONCLUSIONS OF THE FINANCIAL ANALYSIS

As the fleet of GreenGo is financed mainly from operating leases, recognised as off-balance sheet liabilities and therefore securing the company an advantage in operation, because the vehicles need not be recognised or financed up-front. In spite of the operational advantage, this situation can involve the significant risk that the shareholders or creditors might not have all the necessary information for a proper market-based evaluation. It remains a question how GreenGo can utilize the fleet properly and whether they can generate cash-flow sufficient to finance the working capital. The company's solvency is rather unstable, as its profit and revenue heavily depend on fleet utilisation.

SUSTAINABILITY

Table 8 shows the total stock of registered passenger cars in Germany, in Hungary, and in their capital cities. In 2017 Germany clearly had a significantly higher stock of passenger cars, 13 times that of Hungary.

Table 8: Number of registered passenger cars in Germany and Hungary (2008–2017)

Location	Level	2008	2009	2010	2011	2012
Germany	country	41,183,594	41,321,171	41,737,627	42,301,563	42,927,647
Berlin	capital	1,091,164	1,088,221	1,105,732	1,120,360	1,135,704
Hungary	country	3,055,427	3,013,719	2,984,063	2,967,808	2,986,028
Budapest	capital	596,481	581,991	573,315	566,790	565,563
Pest	county/region	426,629	421,739	418,010	417,922	422,107

Location	Level	2013	2014	2015	2016	2017
Germany	country	43,431,124	43,851,230	44,403,124	45,071,209	45,803,560
Berlin	capital	1,149,520	1,154,106	1,165,215	1,178,417	1,195,149
Hungary	country	3,040,732	3,107,695	3,196,856	3,313,206	3,471,997
Budapest	capital	573,264	583,694	597,337	611,941	633,554
Pest	county/region	434,564	446,788	464,435	486,467	512,819

Source: HCSO, 2019b; Kraftfahrt-Bundesamt, 2019

The ratio of electric cars also differs greatly between the two countries: Germany has a relatively smaller ratio of electric cars due to its total registered passenger car stock of over 45 million. While the total number of German electric passenger cars rose by over 25 thousand, Hungary has a higher relative growth rate at 86.7% against Germany's 52.9% between 2017 and 2018.

Table 9: Number of German and Hungarian electric passenger cars (2017–2018)

	2017	2018									
	Dec	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct
Germany, total	48,005	50,769	53,315	57,107	60,278	62,588	65,239	67,765	67,651	70,008	73,398
Hungary, total	4543	4836	5115	5565	5927	6356	6763	7112	7551	7916	8482
By category											
5E (purely electric)	2129	2238	2352	2611	2768	2959	3066	3190	3364	3522	3773
5N (Range Extension Electric)	1158	1236	1327	1431	1527	1639	1768	1866	1992	2124	2312
5P (rechargeable hybrid)	1255	1355	1430	1517	1626	1755	1928	2055	2194	2269	2396
5Z (other zero emission)	1	7	6	6	6	3	1	1	1	1	1
Regional distribution											
Budapest	2428	2575	2714	2989	3177	3400	3586	3754	3981	4174	4464
Other	2115	2261	2401	2576	2750	2956	3177	3358	3570	3742	4018

	2017	2018									
	Dec	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct
National statistics											
All passenger cars	633,554										
Ratio of electric cars to all the cars	0.38%										
Number of vehicles in the 2 companies	268										
Proportion of national electric cars	12.59%										

Source: Kraftfahrt-Bundesamt, 2019; Villanyautosok.hu

In the reviewed one-year period, of the four electric categories in Hungary, the number of 5E cars increased by 77.2%, with the number of registered cars peaking in March. The October 2018 increase in 5N electric cars by 188 is an absolute peak, while the total growth rate is near 100%. However, plugin hybrids performed only moderately. According to 2017 data, electric cars only made 0.38% of all passenger cars, of which the two car sharing companies represented 12.6% (268 electric fleet).

Three of the seven considerations appear in the official communications of the companies.

Table 10: Sustainability related considerations of sharing

Sustainability benefits of Sharing	GreenGo	MOL Limo	BMW DriveNow	Daimler Car2Go
Resource efficiency through using rather than owning	There is less emphasis on parking infrastructure and road expansion .		Digital parking service ParkNow	The smart ForTwo can fit in almost any parking spot and can manoeuvre around even the craziest downtown rush-hour traffic jams.
Low ecological footprint/low carbon	300 electric cars	The VW MOL Limo fleet is 350-strong (100 electric and 300 gas-powered)	900 electric cars in Europe, 1300 in the USA	
	Shared cars are smaller than newer than those in the average household.			
Own less, interact more, build social capital			digital networking	Over 50% of car2go members don't own a car.

Source: BMW Group, 2017; Daimler, 2016; Penz et al., 2018; www.mollimo.hu/en; www.GreenGo.hu/en

Table 11: Aspects of a sustainable sharing economy (SSE)

	BMW	Daimler
New business model	<p>“The focus will remain on the development, production and sale of vehicles, with a wide range of innovative mobility services on top.” (p. 11)</p> <p>“Providing opportunities to test BMW i3 as part of our DriveNow car-sharing scheme.” (p. 60)</p>	<p>“Transport infrastructure and transport systems frequently operate at their limits, especially in urban areas. That is why Daimler has developed a range of pioneering mobility concepts.” (p. 55)</p>
Geo-graphic expansion	<p>“DriveNow is currently available in 13 European cities. On 8 April 2016, the BMW Group launched an advanced car-sharing programme in the USA under the name ReachNow.” (p. 73.)</p>	<p>“The 300 new vehicles are being used in Berlin, and the additional models will also be introduced to other cities in the future.”</p> <p>“In 2016, car2go was launched in the Chinese megacity of Chongqing with the brand suffix “JiXing” (roughly: “drive off immediately”). The Daimler subsidiary car2go is the first international company to implement the free-floating car-sharing concept in China.” (p. 55)</p>
Public transport	<p>“DriveNow in Copenhagen is operated by the city’s public transport company Arriva. With their “Rejsekort”, a card for almost all mobility services in the whole of Denmark, users also gain access to DriveNow. (p. 74)</p>	<p>“From the car-sharing provider car2go and the mobility platform moovel to the taxi app mytaxi, the coach company flixbus, and the Bus Rapid Transit (BRT) system.” (p. 55)</p>
Electric vehicles	<p>“The fleet for both programmes currently comprises more than 6,000 vehicles in Europe, of which around 15% are purely electric BMW i3 vehicles. A further 1,300 vehicles are available in the USA. DriveNow is one of the strongest drivers of electromobility in Germany.” (p. 71)</p> <p>“Copenhagen is the only city in Europe in which we have operated our car-sharing service from the start with a fleet of purely electric BMW i3 cars. The good charging infrastructure in the city offers ideal conditions for this.” (p. 74)</p>	<p>“car2go has added 20 smart ForTwo electric vehicles to the local fleet. This is the first step in evaluating the feasibility of using electric vehicles in our fleet by relying on Montréal’s existing charging infrastructure, as well as determining how the city’s climate conditions impact vehicle range and availability.” www.car2go.com/NA/en/nextgen/</p>

Source: BMW Group, 2017; Daimler, 2016

CONCLUSIONS

1. In terms of finances, in the period reviewed neither the Hungarian, nor the German companies (with a one-year exception for DriveNow) realised profit after taxes.

2. Regarding sustainability, three key areas can be identified as targets for the reviewed entities, including a) improvement in the efficiency of resource utilisation; b) minimising carbon footprint and c) building social capital.

3. In the reviewed sustainability reports, car2go and DriveNow were compared in the following four areas: a) new business model; b) geographic expansion; c) public transport; and d) electric vehicles. The basic idea of sustainable mobility is simple: “We need to shape our city mobility in a way that the ease and safety of our everyday

mobility should not deteriorate but improve the quality of life now and in the future for the generations to come” (Tkatchenko, 2017).

4. With the recent merger of the two German entities (Roy, 2018), the most significant German service providers of this business line have significantly expanded their geographic scope. Nothing can prevent a business of this size from open new businesses in Central and Eastern Europe perhaps already in the near future.

NOTE

- ¹ Exchange rate: 2017 Yearly average rate of the Hungarian National Bank was applied 309.21 HUF/EUR. source: www.mnb.hu.

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