

UN Global Compact and firm life cycle: an exploratory analysis

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■ ABSTRACT

We study the life cycle stage at which firms decide to join the United Nations Global Compact (UNGC). The UNGC is arguably the most important voluntary corporate social responsibility (CSR) initiative. We follow the life cycle methodology by Dickinson (2011). Our overall results show that most firms in the sample decide to join the UNGC when at the Mature stage of their life cycle. This result is in line with previous studies that show that mature firms invest more in CSR, than firms in other life stages. To the best of our knowledge, this exploratory undertaking is not yet available in the corporate responsibility literature.

Keywords: United Nations Global Compact, corporate social responsibility, life cycle

El Pacto Global de las Naciones Unidas y el ciclo de vida de la firma: un estudio exploratorio

■ RESUMEN

Estudiamos el momento en el ciclo de vida en el que una firma se compromete con el Pacto Mundial de las Naciones Unidas (PMNU). El PMNU es probablemente la iniciativa de responsabilidad social voluntaria más importante. Para determinar el ciclo de vida, usamos la metodología de Dickinson (2011). Los resultados demuestran que la mayoría de las firmas aceptan el pacto en su etapa madura. Este resultado es consistente con otros estudios que encuentran que, en efecto, son las firmas maduras las que más invierten recursos en responsa-

bilidad social. Entendemos que este análisis no está disponible en la literatura de responsabilidad social corporativa.

Palabras clave: Pacto Mundial de las Naciones Unidas, responsabilidad social corporativa, ciclo de vida

Introduction

One of the most successful global corporate sustainability initiatives is the United Nations Global Compact (UNGC). The UNGC was launched in 2000 with the goal of bringing together the objectives of the international community and those of the business world. It is a voluntary corporate sustainability initiative that asks chief executives to align their day-to-day business operations with 10 universally accepted principles on human rights, labor, environment, and anti-corruption. By adopting these principles (see Table 1), the UN aims to promote ethical economic growth by ensuring that businesses drive globalization in ways that benefit economies and societies around the world (Schembera, 2018; Waddock, 2004). Arguably, the UNGC is the corporate social responsibility initiative with the largest number of adopters (Ortas et al., 2015; Orzes et al., 2018; Rasche et al., 2013).

There is a solid amount of research on corporate social responsibility (CSR) and on the UNGC in particular (Orzes et al., 2018). Some studies define the UNGC as an initiative to diffuse the core values of the UN into the corporate world (Kell, 2013). And although it is broadly cataloged as a success (Thérien & Pouliot, 2006), the UNGC approach has received some criticisms (Williams, 2014). Some of its detractors argue that its membership is small and geographically concentrated (Bremer, 2008). Others find evidence that UNGC-firms fail to comply with the requirement of annual progress reports (Jastram & Klingenberg, 2018; Sethi & Schepers, 2014) and some even question the impact of UNGC-firms on their communities (Rasche et al., 2013).

Table 1

Ten Principles of the UNGC

	Principle
Human Rights	1: Businesses should support and respect the protection of internationally proclaimed human rights; and 2: make sure that they are not complicit in human rights abuses.
Labor Standards	3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining; 4: the elimination of all forms of forced and compulsory labor; 5: the effective abolition of child labor; and 6: the elimination of discrimination in respect of employment and occupation.
Environment	7: Businesses should support a precautionary approach to environmental Challenges; 8: undertake initiatives to promote greater environmental responsibility; and 9: encourage the development and diffusion of environmentally friendly technologies.
Anti-Corruption	10: Businesses should work against corruption in all its forms, including extortion and bribery.

Source: Based on the information available on the United Nations Global Compact website: <https://www.unglobalcompact.org/>

There are also conflicting views whether firms should join or not the UNGC. For example, firms that join the UNGC instantly gain reputational benefits and increase their global projection (Janney et al., 2009). However, the same study finds that US firms suffer a negative market reaction for joining. Although the study looks only at short event windows, the results do raise the question of if, and when, it is a good time for a US firm to join this

initiative. Also, by voluntarily joining the UNGC, firms are set to a higher standard of scrutiny as they are required to submit annual progress reports that might or might not include negative news that may otherwise have remained private (Janney et al., 2009). Critics argue that, because there are low barriers of entry and practically no enforcement of compliance, joining firms receive an 'easy-pass' to CSR prestige. On the other hand, those who still defend the virtues of the initiative claim that the UNGC provides a platform for the continuous improvement of firms. For example, Arevalo et al. (2013) find a positive correlation between UNGC adoption and costs savings and revenue growth. The same study finds, that the UNGC provides firms with an opportunity for improve their productivity. Garayar et al. (2012) report that the UNGC could serve as an open window for firms into other geographical markets. Barrese et al. (2020) provide compelling evidence in favor of UNGC backers.

Firms might also feel external pressures to join the UNGC and decide to join because it is more costly for them not to join. This pressure might come from activists (Lim & Tsutsui, 2012), competitors (Garayar et al., 2012), investors (Williams, 2014), and the media (Barkemeyer, 2009), among others.

Given that the decision to join the UNGC presents a balance between cost and benefits, in this study we examine the life-cycle stage at which public firms in the United State choose to voluntarily adopt the UNGC. The present study contributes to the bulk of knowledge of CSR given that this exploratory undertaking is not yet available in the CSR literature. Several studies do show that mature firms significantly invest more in CSR (Hasan & Habib, 2017; Trihermanto & Nainggolan, 2018).

Life cycle has been linked to a wide range of corporate variables. For example, signaling hypothesis (Meza et al., 2020), dividend policy (Trihermanto & Nainggolan, 2018), corporate social responsibility (Hasan & Habib, 2017; Withisuphankorn & Jirapor, 2016), age (DeAngelo et al., 2010), earned to contributed capital ratio (DeAngelo et al., 2006), assets growth (Grullon et al., 2002), as well as a multivariate ranking dividend payout ratio, sales

growth, capital expenditure and age (Anthony & Ramesh, 1992). In the present study, we employ the composite proxy developed by Dickinson (2011) to capture firm-specific life cycle. Following Gort and Klepper (1982), life-cycle classification is accomplished by using a firm's operating, investing, and financing cash flows in combination to assign life cycle stages (introductory, growth, maturity, shake-out, and decline). Dickinson's (2011) study uses the proxy of a firm's life cycle to analyze the explanatory power and time series' effects on profitability. The study indicates that explanatory power of future profitability is increased by over 35% with the inclusion of life cycle information, even after controlling for the level and change in current profitability and growth in assets. She demonstrates the superiority of the cash flow pattern life cycle measure over other proxies used such as age, size, sales growth, capital expenditures, research and development, and dividend payments (e.g., Anthony & Ramesh, 1992; Black, 1998).

Data

In this study, we examine the life cycle stage at which the management of US public firms decide to join the voluntary corporate sustainability initiative known as the United Nations Global Compact. We follow Dickinson (2011) to establish the firm life cycle, which is based on the predicted behavior of operating, investing, and financing cash flow across different life cycle stages. To be included in the sample, a firm must have no missing (or the value is different to zero) values for operating, investing, and financing cash flow for any given year. Our analysis covers the period from 2000 (first year of the UNGC) to 2017. The list of publicly held firms affiliated to the UNGC is available from the UNGC website. Financial data on UNGC-firms come from Bloomberg, the Center for Research in Security Prices (CRSP) and COMPUSTAT. Our sample is composed of 94 US-based firms that joined the UNGC during the study period and have all the financial data needed for determining their life cycle stage available in the aforementioned sources.

Table 2 shows the distribution of the 94 firms based on the year each joined the UNGC. As the table shows, the early years of the

UNGC saw only a small number of US public firms joining this initiative. Membership took more traction later on with 11 and 12 firms joining in years 2015 and 2016 respectively. Table 3 shows that these firms trade their stock mostly in the NYSE (70 firms), followed by NASDAQ (22). Only two firms trade at the OTC. Finally, Table 4 presents the distribution of these firms into industry sectors. While the firms are fairly diversified amongst sectors, a good number of firms are from the Pharmaceuticals & Biotechnology (10), Technology Hardware & Equipment (8), Food Producers (7), and Software & Computer Services (7). In the next section we present a brief description of the life cycle methodology.

Table 2

UNGC Joined Year

Year	Number of firms	Cumulative
2000	1	1
2001	3	4
2002	3	7
2003	1	8
2004	3	11
2006	5	16
2007	2	18
2008	8	26
2009	9	35
2010	6	41
2011	6	47
2012	6	53
2013	5	58
2014	4	62
2015	11	73
2016	12	85
2017	9	94

Source: Based on the information available on the UNGC website and authors calculations.

Table 3

<i>Stock Exchange</i>		
	Number of firms	Cumulative
NASDAQ	22	22
NYSE	70	92
OTC	2	94

Source: Based on the information available on the UNGC website and authors calculations.

Table 4

<i>Industry Sector</i>		
	Number of firms	Cumulative
Alternative Energy	2	2
Automobiles & Parts	2	4
Banks	2	6
Beverages	3	9
Chemicals	6	15
Construction & Materials	4	19
Electronic & Electrical Equipment	3	22
Financial Services	3	25
Food Producers	7	32
General Industrials	5	37
General Retailers	3	40
Health Care Equipment & Services	1	41
Household Goods & Home Construction	1	42
Industrial Engineering	1	43
Life Insurance	1	44
Media	3	47
Mining	1	48
Mobile Telecommunications	1	49
Nonlife Insurance	2	51
Oil & Gas Producers	2	53
Personal Goods	6	59
Pharmaceuticals & Biotechnology	10	69
Real Estate Investment & Services	2	71
Software & Computer Services	7	78
Support Services	6	84
Technology Hardware & Equipment	8	92
Travel & Leisure	2	94

Source: Based on the information available on the UNGC website and authors calculations.

Methodology

A good number of studies show that firms that join the UNGC face both costs and benefits. In this study, we examine the life cycle stage at which public firms in the United States choose to voluntarily adopt the UNGC. Our analysis runs from the beginning of the UNGC initiative until 2017. Our life cycle methodology is based on Dickinson (2011), which in turn employs Gort and Klepper's (1982) classification of life cycle stages (introductory stages, growth stage, maturity stage, shake-out stage, and decline stage). These five life cycles stages can be further specified as: (1) introduction where an innovation is first produced; (2) growth where the number of producers increases dramatically; (3) maturity where the number of producers reaches a maximum; (4) shake-out where the number of producers begins to decline; and (5) decline where there is essentially a zero-net entry. Dickinson also uses Livnat and Zarowin's (1990) decomposition of cash flows into operating, investing, and financing activities and how each differentially affects stock returns. These three cash flow types can take a positive or negative sign (according to economic theory) which results in 8 possible combinations. The combination between the cash flow pattern and economic theory (see Table 5) form the basis for the cash flow patterns proxy for a life cycle. A firm is discarded if any cash flow value is zero or missing. Table 6 displays each life cycle stage based on the patterns (determined by sign) of operating, investing, and financing cash flow. We use this procedure to classify firms, introductory stages, growth stage, maturity stage, shake-out, or decline in the year they join the UNGC.

Table 5

Economic Theories to Cash Flow Patterns form Dickinson's View

Cash Flow	Introduction	Growth	Mature	Shake-out	Decline
Operating	Firms enter market with knowledge deficit about potential revenues and cost	Profit margins are maximized during period of greatest investment	Efficiency maximized through increased knowledge of operations	Declining growth rates lead to declining prices	Declining growth rates lead to declining prices
Investing	Firms make early large investments to deter entry	Firms make early large investments to deter entry	Obsolescence increases relative to new investment as firms mature	No theory	Sales of assets to services to debt
Financing	Pecking order theory states firms access bank debt then equity. Growth firms increase debt	Pecking order theory states firms access bank debt then equity. Growth firms increase debt	Focus shifts from acquiring financing to servicing debt and distributing surplus funds	No theory	Focus on debt repayment and/or renegotiation of debt

Source: Dickinson (2011).

Table 6

Cash Flow Pattern Classification

Cash Flow Type	Introduction	Growth	Mature	Shake-Out	Decline
Operating activities (OCF)	-	+	+	+	-
Investing Activities (ICF)	-	-	-	+	+
Financing Activities (FCF)	+	+	-	+	-

Note 1. The table presents the life cycle classification according to Dickinson (2011).

Note 2. The introduction stage if $OCF < 0$, $ICF < 0$, and $FCF > 0$; Growth stage if $OCF > 0$, $ICF < 0$, and $FCF > 0$; Mature stage if $OCF > 0$, $ICF < 0$, and $FCF < 0$; Decline stage if $OCF < 0$, $ICF > 0$, and $FCF < 0$ or $FCF > 0$; and the resting firms years are classified as Shake-out stage.

Source: Dickinson (2011).

This method of life cycle classification is also used by Hasan (2018), Lopatta et al. (2020), Meza et al. (2020), and Blomkvist et al. (2021).

Empirical Results

We determine the life cycle stage at which US firms decide to voluntarily join the UNGC. Our sample period goes from 2000 to 2017. We identify 94 firms with all the data available for a successful classification. We use the methods in Dickinson (2011) to determine if firms decide to join the UNGC in their introductory, growth, maturity, shake-out, or decline stage in the life cycle. Although many studies on the UNGC show that a firm's decision to join or not is not trivial, we are not aware of any study similar to ours.

The results of the life cycle analysis on UNGC firms are shown in Table 7. We find that most firms join the UNGC at its Mature stage. The total number of mature firms in the sample is 56 – which is close to 60% of the sample. This result is consistent with the general understanding that, in comparison with firms in other life-cycle stages, mature firms invest more in CSR initiatives (Hasan & Habib, 2017; Trihermanto & Nainggolan, 2018). Withisuphankorn & Jirapor, 2016). The main argument for this evidence is that, as firms age their environmental and diversity awareness also grows.

Table 7

Life Cycle

	Number of firms	Percentage (%)
Introduction	5	5.32
Growth	15	15.96
Mature	56	59.57
Shake-Out	15	15.96
Decline	3	3.19

Note. Distribution of the life cycle stage of US public firms at the time of joining the UNGC.

Source: Authors calculations.

The same number of firms (15) in the sample decided to join the UNGC when they were at the Growth or Shake-Out stage. Only 5 firms joined at the Introductory stage and fewer, just 3 firms, at the Decline stage joined the voluntary corporate responsibility initiative. These results indicate that most firms wait until their Mature stage to join the UNGC. This is not a surprise, since joining this corporate sustainability initiative not only brings recognition and value, it also brings extra costs and responsibilities. Mature firms are not only more aware of complying with CSR standards, they also are in a better position to assume the associated costs (Hasan & Habib, 2017; Trihermanto & Nainggolan, 2018).

Conclusion

The United Nations Global Compact is the largest voluntary corporate social responsibility initiative. The goal of the UNGC is to have firms adopt a set of corporate socially responsible global principles on human rights, labor, environment, and anti-corruption, and by doing so, promote ethical economic growth. Firms that join the UNGC gain instant recognition value, but also agree to be completely open about how they comply with these standards.

We tackle a research question that, to the best of our knowledge, is not yet addressed in the UNGC literature. At what life cycle stage firms decide to join the UNGC? To answer this question, we use the life cycle methodology of Dickinson (2011). We examine the life cycle stage at which public firms from the US decide to join the UNGC from the launch of the corporate socially responsible until 2017. The sample includes 94 firms. And we find that most firms join the UNGC in their mature stage. This result is in line with previous research that highlights the fact that firms in the mature stage are the ones investing more resources on CSR initiatives.

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