

Original Paper

ALMOST INTERCONNECTED—How Sweden’s 50 Largest Companies Apply a Systems Approach to Sustainability

Johanna Hallin^{1*}, Michelle Sandberg¹ & Nathalie Ahlstedt Mantel¹

¹ Inter Business Initiative, Stockholm, Sweden

* Johanna Hallin, Inter Business Initiative, Stockholm, Sweden

Received: June 3, 2018

Accepted: June 11, 2018

Online Published: June 19, 2018

doi:10.22158/asir.v2n3p63

URL: <http://dx.doi.org/10.22158/asir.v2n3p63>

Abstract

A new complex and global society demands new approaches to solving our shared challenges and making businesses thrive. As a result, applying a systems approach is becoming more important for businesses when forming strategies for the future. The Inter Business Index is a measurement tool to understand a company’s holistic value creation, and one part of the index is a specific measurement focused on a company’s ability to adapt a systems approach to core strategy and operations. By qualitative analysis of annual and sustainability reports of Sweden’s 50 biggest companies, looking at how the companies relate to future needs and requirements, their own sense of responsibility and place in the system, ability to analyze complex problems and ability to make strategic priorities thereafter, the index ranks the companies by ability to apply a systems approach. Our findings show that companies are better at analyzing what needs to be done, but are having a hard time prioritizing their actions to fit. In discussion, we argue that short sightedness of profits companies traditionally has might make this process harder, albeit necessary.

Keywords

Systems approach, Inter Business Index, Corporate Sustainability, Agenda 2030, policy making, corporate governance, Sweden

1. Introduction

1.1 Introducing Interconnected Systems & Businesses

There are many definitions of a system, but after analysis Alexander Backlund (2001) suggests the simplest possible definition “a system has to consist of at least two elements. Since a system is not an aggregate, there must be connections between them”. And systems thinking is, according to Arnold and Wade (2015) quite literally a system of thinking about systems. This approach has gained momentum

both in looking at societal challenges as business challenges alike.

According to Arnold and Wade (2015), systems thinking is based on three things: elements, interconnections and function/purpose. The latter is often the most crucial in determining how a system behaves, even though often the least obvious. Arnold and Wade found that not all systems have a goal or objective, but systems thinking always does. They also claimed it an extremely important skill in determining our world's future as it transcends disciplines to support and connect them in highly impactful ways.

Boundaries as a concept becomes interesting when applying a systems approach—as there are none. Our world is a continuum, meaning there are no separate systems—they are all interconnected in some way or another. Where we draw our boundaries is dependent on the purpose of the discussion, what goal we are aiming at. It is important to remember the arbitrariness of this fact when adapting a systems approach. In the real system, we are all interconnected. One element cannot succeed without the other in an integrated world. Our global economy will not thrive if our environment does not, a company will not thrive if their employees does not, as the human will not thrive if their internal organs does not (Meadows, 2008).

This fact has huge implications on businesses, and places whole new dimensions of needs and capabilities for businesses to succeed in a changing and interdependent future. An interconnected systems approach challenges concepts as competition, exploitation and narrow horizons focused on the bottom line—many of them important cornerstones as to how businesses has been run so far with profit as a vision.

1.2 The Important Difference between “Complicated” and “Complex” Systems

As mentioned by Silvia et al. (2013), several researchers have for the past decade highlighted the increasingly complex nature of organizations, institutions and societies. As their actions are impacting each other, we refer to our economy as global. They are all operating within a shared system.

But to understand this new situation and need for a new approach, we need to understand the difference between “complicated” and “complex”. Rick (2017) claims that complicated systems are based on a robust set of rules, axioms and the predetermined proper models—which needs to be managed by a team of experts. Complex systems, on the other hand, are in contrast nuanced and need anything but a rigid complicated approach. They need flexibility and the ability to navigate the unknown and learn from past mistakes.

In short, when a system develops, so does the need for new structures and problem-solving abilities. In the past, we have mainly had problems that are based on causality and linear relationships—which are easily understood and solved by a traditional approach. But as the complexity of value chains, information and interconnected development expands in phase with a globalized world and economy—this approach is no longer efficient. This new form of complexity demands a new, systematic approach to navigating them (Small & Walker, 2011).

Researcher Barry Richmond coined the term Systems Thinking in 1987 (1994), and writes: “As interdependence increases, we must learn to learn in a new way. It's not good enough simply to get

smarter and smarter about our particular 'piece of the rock'. We must have a common language and framework for sharing our specialized knowledge, expertise and experience with 'local experts' from other parts of the web".

1.3 Next Generation of Businesses

Companies need to develop capabilities that have the ability to thrive in complex systems—both in management and structures. Peter (1990) writes that companies must become “*learning organizations*”—based on fostering aspiration, developing reflective conversation and understanding complexity to master this shift. Incorporating a systems approach in business strategy is one example of how an organization could gear up for a more agile organization ready to meet the needs of a new and complex world.

More responsibility is being placed on companies in relation to sustainability—mandatory sustainability reporting in the EU (Directive 2014/95/EU) is one important step, as well as companies being recognized as essential to solving our shared challenges by Agenda 2030 (UN, 2015). At the same time, research show that sustainability is moving up the company hierarchy, becoming ever more important for business leadership, investors and boards (Hallin et al., 2018).

Research also show that to fully understand and step up to this task of greater responsibility for business to solve our global challenges, they need to take into account all the different aspects that interact with each other, and to consider and be aware of the entire system that they are a contributing part of Barile, Saviano, Landolo and Calabrese (2014).

1.4 The Inter Business Index

The Inter Business Index is a tool for measurement of holistic value creation in business, providing comparable results over sectors and time. It is based on an identified gap, that corporate sustainability as understood today is context-specific and unable to take on our shared complex and difficult societal challenges, at the same time as higher demands are placed on businesses to do their part of solving them (Hallin et al., 2017).

The analysis is built on four abilities or key-components found to be of utmost importance when working towards a holistic sustainability agenda; purpose, empathy, systems approach and transformation (Hallin et al., 2017). The ability of systems approach in the Inter Business Index is important for the analysis as it represent the company's ability to understand the system they operate in; macro challenges society is facing and capability prioritize thereafter (Hallin et al., 2016).

2. Method

2.1 The Inter Business Index Method

The Inter Business framework focuses on analyzing the integration of sustainability in priorities, stakeholder dialogue and external communication of the company—bringing about a holistic view of the future preparedness of any company, market or sector analyzed (Hallin et al., 2017).

Using publicly available materials such as annual reports, sustainability reports, interactions with

stakeholders and communications the Index determines how well a company integrates the four abilities in their strategy by applying a qualitative analysis to the material. The analysis is in part based on a set of 12 indicators—values, strategy, main services, results, approach, priorities, transparency, sustainability context, stakeholder inclusiveness, key assets, diversity in board and corporate governance—and in part one additional measurement aimed at each capability as it is manifested in relationship to stakeholders (Hallin et al., 2017).

2.2 The Systems Approach Index

To analyze the systems approach ability in the publicly available materials from Sweden's 50 biggest companies, The Inter Business Index uses a core analysis (a qualitative analysis of the 12 key components mentioned above) found in the company's annual and, when available, sustainability report. In addition, the analysis is an in-depth qualitative analysis of the annual reports focusing on four main parts, and based on if the company analyzed:

- Moves towards a holistic (non-linear, non-isolated) view of sustainability, assessing performance and progress using required practices for the future as benchmarks.
- Displays a genuine understanding of one's responsibility and place in the system.
- Makes a thorough attempt to understand, define and analyze the problem in depth.
- Maintains a steady connection to, and a firm gaze on, the surrounding world.

These four criteria are based in part on findings in literature on business and systems approach to define a successful systems approach, and in part based on the Future Fit Framework, a free tool and measurement to ensure long-term value for business and society within planetary restrictions (Future Fit, 2018).

By looking at how the company is shifting towards the actions required tomorrow via its understanding of future needs and requirements, recognizing its change agency, definitions of the problems and prioritization of actions based on these insights—the relative process of comparing with past performance becomes irrelevant. Scoring of the systems approach ability in the Inter Business Index is based on points relating to if a company does not apply a system approach on above mentioned parameters, do apply a system approach from time to time, or consistently applies a system approach. The total sum of the scoring is an aggregated result of the medium value of the core analysis and the medium value of the content analysts, each indicator is rated 0-100 percent and total score is the medium value of both measurements (Hallin et al., 2017).

2.3 Material: Sweden's 50 Biggest Companies

The Inter Business Index analyzes Sweden's 50 biggest companies, based on annual revenue, the given year. The Inter Business Index looks at publicly available information such as annual reports, sustainability reports, stakeholder interactions, and press releases. The companies analyzed for Inter Business Index 2018 are the following:

Table 1. Sweden's 50 Biggest Companies

| | | |
|----------------|--------------------|---------------|
| ABB | H&M | SAS |
| Alecta | Handelsbanken | SCA |
| Alfa Laval | Hexagon | SEB |
| Assa Abloy | Husqvarna | SKF |
| Astra Zeneca | ICA Gruppen | SSAB |
| Atlas Copco | IF Skadeförsäkring | Sandvik |
| Autoliv | Investor | Scania |
| Axel Johnson | KF | Securitas |
| Axfood | Lantmännen | Skanska |
| Boliden | Länsförsäkringar | Stena |
| Carl Bennet | NCC | Stora Enso |
| Circle K | Nordea | Swedbank |
| Electrolux | Nordstjärnan | Telia Company |
| Ericsson | OKQ8 | Vattenfall |
| Folksamgruppen | PEAB | Volvo |
| GE Healthcare | Postnord | Volvo Cars |
| Getinge | PREEM | |

3. Result

3.1 Ranking Performers of Systems Approach in the Inter Business Index

Table 2. Top Performers of Systems Approach of the Inter Business Index

| | | |
|------------------|--------------|--------------------|
| Lantmännen | Getinge | SAS |
| ICA Gruppen | Swedbank | Handelsbanken |
| Axfood Ab | Boliden | Astra Zeneca |
| H&M | PostNord | Vattenfall |
| Hexagon | KF | Atlas Copco |
| Länsförsäkringar | Volvo | Investor |
| Folksamgruppen | Axel Johnson | ABB |
| Alecta | Alfa Laval | SSAB |
| Telia Company | Electrolux | Volvo Cars |
| SCA | Autoliv | Sandvik |
| NCC | Ericsson | Nordstjärnan |
| PEAB | Skanska | GE Healthcare |
| Stora Enso | OkQ8 | IF Skadeförsäkring |

| | | |
|------------|-----------|-------------|
| Husqvarna | SKF | Circle K |
| Scania | Securitas | Preem |
| Assa Abloy | Stena | Carl Bennet |
| SEB | Nordea | |

3.2 Insights Based on Criteria

Based on findings from the top 10 companies in the systems approach index, we have gathered insights on how companies work in relationship to these criteria's.

3.2.1 Future Needs and Requirements

All of the top performers of the Systems Approach Index have discussions on future needs that their company will need to adapt to. Changing markets and conditions makes it imperative for businesses to change in order to survive. A very common approach to sustainability work in business is to compare their performance against previous efforts and results, focusing on constant improvements rather than on efforts that actually meets future requirements. Most of the companies that were analyzed lack goals that goes beyond the next few years. Another common approach was to compare one's sustainability work against competitors and industry peers rather than objective planetary restrictions and limits.

Some of the top companies in the Systems Approach measurement are however starting to recognize the need for a shift in focus from today's best practice—to tomorrow's required practices. They do this by setting goals that extends further than 2-3 years, and starting to have discussions on the need the change and what this actually means for them and their specific context.

3.2.2 Recognizes Its Responsibility, Change Agency and Place in the System

The companies performing at the top of the Systems Approach Index all displays a genuine understanding of their responsibility for a sustainable development, which involves a wide spectrum of issues. These businesses also show a willingness to change, and recognize their part—their change agency, and how they contribute to a positive societal change. This includes a deep understanding of the company's context, place in the system and their impact on society. They manifest this understanding by recognizing the specific responsibility they have internally, in their industry, community, and world.

Still, many of the companies ranking lower than top 10, fail to see the system that they are a part of, therefore also failing to see how we all, as people and businesses, are interconnected.

3.2.3 Ability to Analyze Complex Problems

Another crucial part in being able to adapt a systems approach is the ability to analyze complex problems. This means to have the ability to see problems not only problems facing them as a company or their specific industry, but pressing issues on a global scale and our shared challenges. The ability to approach problems in a holistic manner is crucial, and the companies at the top of the Systems Approach Index have the ability to analyze micro and macro problems, on a local as well as a global scale.

Some of the top performers have the ability to understand even the less obvious problems they are affected by and are causing, perhaps outside of their core operations, in their value chains and at their

distributors. Still, throughout the analysis, many companies showed a very narrow focus, only analyzing problems that affected their specific business, if even that.

3.2.4 Aligned Strategic Priorities

The most difficult part of a systems approach is being to align the strategic priorities in accordance with future requirements, their responsibility as a company and the complex problems facing us all. This proved to be difficult even for the top 10 companies and a majority still has sustainability as a separate strategy, or focus on specific priorities that are separate from the overall analysis of, for e.g., future requirements.

4. Conclusions

What we learned when looking at Sweden's 50 biggest companies and how they work with a systems approach in their core strategy, is that the analysis of a changing world is the easier part, versus actually making the priorities needed to set the organization on a new course, which has shown to be more difficult. Many companies analyzed have insight into the complex problems and shared challenges the world is facing and needs for the future—meaning, they know to some extent where they need to go to be sustainable and take the responsibility they understand is theirs. Still, the actual transformation in operations seems very difficult to do. Even setting the strategic priorities in line with the analysis is troublesome for most. This gap of knowledge and action indicates the newness of applying a systems approach in business strategy—very few seem to understand how to operationalize the findings into strategies for the future. The corporate sustainability field is changing, and applying a systems approach is very important to be able to make a contribution towards a sustainable society in an interconnected world. Looking at industries and how they differ in applying a systems approach is interesting as it clearly shows the different incentives for companies to discuss and work constructively within our shared system. The food industry will have to adapt rapidly, as consumers demand more transparency and insight into the processing and value chains of products sold. Food will be important at all times, now and in the future—and the industry is gearing up to meet new demands. The fossil fuel industry is underperforming at the systems approach index. It is of course almost impossible for them to be relevant in the future—as their product is a finite resource that is the cause of many of the shared challenges threatening our survival at the planet.

5. Discussion

We can identify a few topics that we deem important to further understand how these companies work with a systems approach, and what might affect their work. The first is policy making. Applying a systems approach is becoming more and more important for companies, not only as they are populated by the people that also populate this world—meaning that their employees and leaders have the same worries and thoughts about wanting to build a healthy society as all others—but as more and more regulation and top-level incentives are being implemented. The UN Agenda 2030 is highlighting the

many shared challenges we are to solve in collaboration in the coming years. The Paris Climate Deal is our most ambitious yet, and the mandatory sustainability reporting rule implemented in the EU to name a few. Companies are undeniably affected by these policy changes and are working to implement the capabilities needed to incorporate a systems approach in their strategy, with varying results. In our analysis, it becomes obvious that many companies are just now beginning this process, surely thanks to these mentioned external circumstances, while some have been doing ambitious work for years. The difference in analysis of their place in the system and the displayed ownership over these issues are clear. Secondly, a systems approach is a difficult ability to implement in a traditional business, as it often in its nature is characterized by short sightedness. Profits have been understood (and to a large extent is still understood) as the main driving force and highest priority of a company. The logic of short sighted profits and exploitation, is not aligned with a systems approach based on the interconnectedness of all, as a business cannot thrive if the society and environment it exists together with doesn't, within the systems approach framework. Lastly, connected to the inherent short-sighted nature of our traditional view of a company, is the idea of charismatic leadership. Business leadership has a lot to gain by not challenging the status quo, as it is most likely will the end their career and they are incentivized to leave behind a short-term stable business. Making the changes needed to apply a systems approach in core strategy is the best way to ensure future preparedness for a company—but may also be perceived as a risk in the short run by leadership. Applying a systems approach to core business strategy is imperative for companies, institutions and organizations at all levels to ensure a healthy planet, future operations and a sustainable business model. The challenges to operationalize these insights are many—but the fact that the founding analysis is present at more companies analyzed in the Inter Business Index is a positive indication that the work has started.

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