

Organization, people, technology

Case study collection in honor of György Drótos, PhD



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Budapest, 2025



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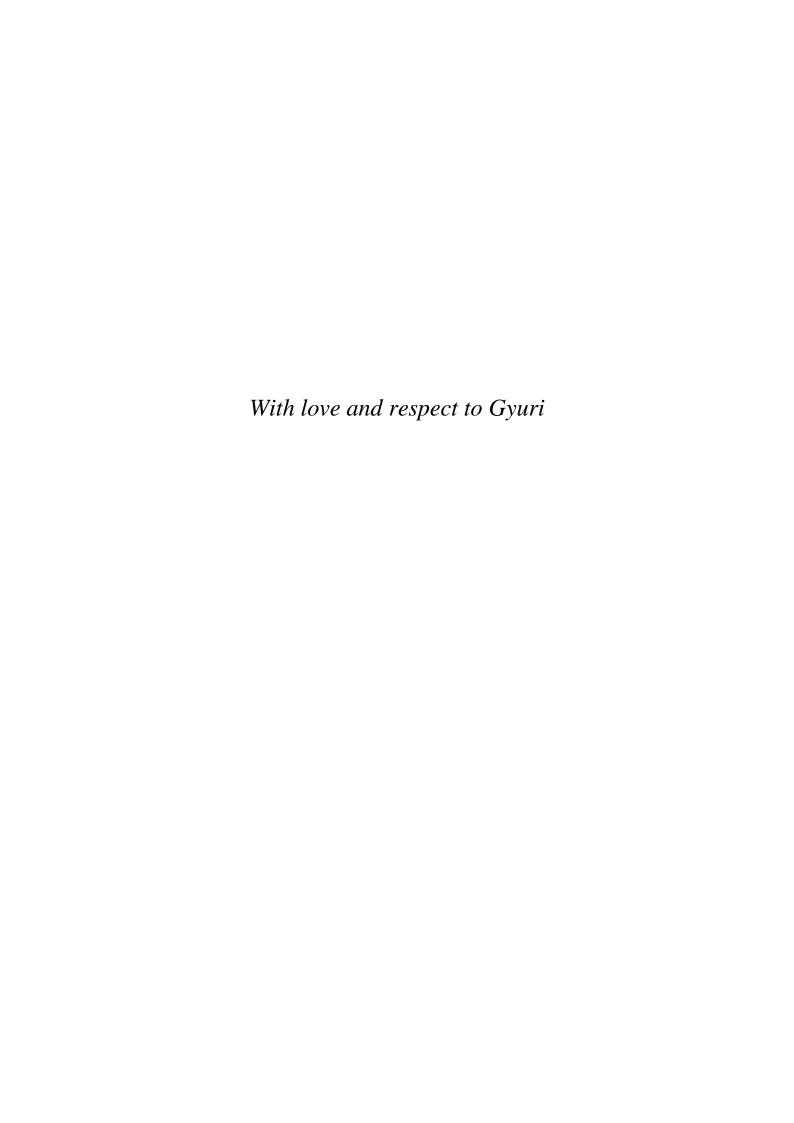
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Preface

A casual foreword instead of a formal birthday tribute (or rather an explanation of what the reader is holding in his hands).

Prologue

Gyuri Drótos (officially Professor György Drótos) turned sixty. This must be some kind of fake news. Gyuri Drótos cannot be 60; he is a lovely young man. He always has been. So, I'm not writing a 60th birthday tribute to him.

Someone told me half a year ago that Gyuri Drótos has a round anniversary approaching. Since he is a man of scientific creativity, we had this great - well, actually, "nothing better" - idea of writing a book. A review of his career, a resumé, and - the sheer writing of it is hard - handing over the baton and saying goodbye. Naturally, there's a bright side to it: if the person we congratulate is important to us, and Gyuri is important to many of us, then we cannot abstain from writing the book, and we gladly have a strong incentive to create. In fact, there wasn't a question at all: we shall write it.

As is usual, everyone started delving into their digital library, or, more likely, frantically roaming through the ideas they once woke up with and seemed awfully brilliant, but were never written down (oh, where are the days when Sándor Kovács, Antal Máriás, or Miklós Marosi taught us to write and organize cards synthesizing our professional/scientific reading or recording our ideas, research questions, hypotheses...). Luckily, in the choice of a topic, there wasn't any limitation since Gyuri Drótos can be associated with any topic: there is not a single more versatile management-science educator-researcher-creator in Hungary. Nor anywhere else, perhaps. Strategy formulation and implementation, business models, operation models, coordination, controlling, information systems supporting operations and management, organization design, process organization, performance measurement and evaluation, leadership roles, the impact of digitalization/artificial intelligence on organizations, management and organizational challenges of business, public and non-profit organizations, large corporations, SMEs and start-ups, the specificities of family businesses, theoretical models, possible interpretations and practical experiences. He engaged himself in all this. Truly, he immersed himself, researched, created and accumulated knowledge, taught, supported, mentored, and transferred.

Thus, everyone who wanted to congratulate set off rummaging and started planning. There are plenty of topics here! Still, something didn't feel quite right. Writing a retrospective book for Gyuri? Talking about him in past tense? Summarize? While he is full of energy, full of new ideas. While he is the one who throws himself most courageously into researching the future, into deciphering the likely impact of the seemingly significant social and technological changes ahead on organizations and managers, into searching for the management and organizational solutions of the future. Moreover, he is not the person who, having worked out something, next would tell it to us, write or present it, as this is it. There are no finished questions. There is not

just one right solution. There are many possible approaches, many different points of view, many different interpretations, and many different possible solutions. Gyuri, not only as a person but also as a professional, portrays acceptance of all kinds of possibilities or even any possibility, receptiveness and openness itself. But then, what should we write about in his book? Open questions? Dilemmas? Arguments and counterarguments? Problems to be solved?

That's what it turned out to be. We have collected thought-provoking small and large cases, dilemmas, thoughts still unfolding, or our thoughts on more complex issues for the celebrated. So many we have received from him over the years, decades even. Plenty of other things too: respect in advance, sincere attention, openness to our thoughts and problems, a variety of answers, and even more questions, a plethora of thoughts, and uncompromising support for everyone and all good causes. Thank you! We hope that our book will not serve as an embellishment of one of your bookshelves but will get scuffed and soiled by everyday use.

Epilogue

No matter how considerable, acquired knowledge is never contrary to the ever-increasing need to learn, to everlasting and sincere curiosity. Taking responsibility as a leader for others is not contrary to regarding 'subordinates' as partners or even, occasionally or regularly, to ceding control. Modest, kind words are not powerless. You are living proof of this, Gyuri. God bless you and stay as you are!

Viktória Bodnár

Budapest, Febr 2025

CASE STUDIES

Developing the digital capabilities of ALMA Pharmacies

Balázs Felsmann, Péter Móricz

Introduction

The emergence of franchise chains has been one of the most important innovations in the Hungarian pharmaceutical retail sector over the past decade. The development of these networks was boosted by the change in the regulatory environment for pharmacies at the beginning of the 2010s, which significantly limited the emergence of owner-operated pharmacy chains.

Today, most pharmacies are franchise members, and competition between franchisors is becoming increasingly intense. The shrinking number of potential new franchisees significantly reduced the possibility for extensive network expansion, leading to increased competition for services and the lure of pharmacies from other networks.

A new trend is to move a growing range of services to mobile platforms, which is becoming increasingly prevalent in the commercial, financial, and public administration sectors. The *ALMA Pharmacies* network is at the forefront of mobile app development and integration. However, for *Patika Management Kft.*, which manages the ALMA network, the question remains whether its innovative digital solutions are sufficient to maintain the novelty charm and attract new customers to franchisee pharmacies.

Pharmaceutical retailing in Hungary

There is a clear distinction between the roles of manufacturers, wholesalers, and pharmacies in the pharmaceutical supply chain. In Hungary, hundreds of manufacturers offer products subsidized under a prescription scheme as well as non-subsidized (over-the-counter) products. In the pharmaceutical supply chain, wholesalers play an intermediary role between manufacturers and the other side where pharmacies, hospitals, and other retail outlets such as medical devices stores and non-pharmacy distribution channels sell the products to end customers. In Hungary, wholesale is a licensed activity where economies of scale are significant, and the market is, therefore, highly concentrated. The two market leaders, *Hungaropharma Zrt.* and *Phoenix Pharma Zrt.*, have a combined market share of almost 90 percent (Annex 1).

The Hungarian pharmacy market is composed of nearly 2,300 community pharmacies, 600 smaller, non-independent units (so-called branch pharmacies linked to other pharmacies) and nearly 100 institutional pharmacies primarily serving hospital needs (Annex 2). After the regime change in 1990, the pharmaceutical retail sector in Hungary started to develop dynamically. Hundreds of new pharmacies were opened, and in the 2000s, the consolidation of pharmaceutical retail ownership started, resulting in the creation of pharmacy chains with over

100 pharmacies under the same majority ownership. The two market-leading pharmaceutical wholesalers, Hungaropharma and Phoenix, have built significant retail chains.

However, the government elected in 2010 departed from a market-oriented liberalization approach to the pharmacy sector. It adopted legislation that banned wholesalers and manufacturers from acquiring ownership of pharmacies. From January 1, 2017, pharmacies could only be majority-owned by pharmacists. For Hungaropharma and Phoenix, the change in the Law on Pharmaceutical Economy created a new situation, as they could not continue their previous retail acquisition strategy. Phoenix, a wholesaler with a German background, retained a minority stake in the pharmacy businesses it previously owned – around 140 *BENU pharmacies* – while Hungaropharma, with domestic owners, decided to fully divest the pharmacy interests held by the company, accepting the legislator's intention.

The regulatory prohibition of ownership networks has spurred innovations by market players, leading to the emergence of franchise models and purchasing and marketing partnerships. Leading such initiatives was particularly important for Hungaropharma in countering the dominance of Phoenix-controlled BENU pharmacies. Recognizing the importance of retail network collaborations, the company set up Patika Management Kft. to develop a franchise network based on mutual benefits involving independent pharmacies.

By the end of 2023, nearly 80 percent of pharmacies became part of a network. Of the market-leading networks, Hungaropharma manages the ALMA and *Gyöngy Prémium* networks through the Patika Management Kft., while BENU and the *Szimpatika* network belong to Phoenix Pharma. (See the number of members of the largest pharmacy networks in Annex 3).

The networks are run by specialized companies (franchisors). The three largest network franchisors are BENU Hungary Zrt., Patika Management Kft., and *Kulcspatikák Zrt*. Franchisees typically generate revenue from membership fees for services provided to pharmacies and other services, mainly marketing and infrastructure services. See the financial data of the three largest network franchisors in Annex 4.

The ALMA franchise

The ALMA Pharmacies is the second largest franchise system of the country. The network has a national coverage of 246 community pharmacies and 82 branch pharmacies. ALMA's success to date has been built on market-leading innovation and a broad service matrix for its partners. Over the years, ALMA Pharmacies has received numerous external awards, including the Hungarian Franchise Association's "Network of the Year" in 2019 and "The Most Dynamically Developing Network" in 2014 and 2022.

The ALMA franchise model focuses on improving the business efficiency of pharmacies while maintaining the professional autonomy of pharmacist-owners. Under the leadership of Patika Management Kft. franchisees join forces to achieve more favorable conditions in terms of purchasing and marketing campaigns and jointly exploit the benefits of economies of scale.

The spectrum of services offered by Patika Management is broad, covering all areas of pharmacy operation. They include the essential elements of networking:

- **Unified image/brand identity**: ALMA Pharmacies provides a unified look and feel to increase customer confidence and the number of customers visiting the pharmacy.
- **Purchase power**: Joint purchasing arrangements allow lower prices, supporting franchisees to achieve higher margins.
- **Marketing support**: Centrally organized campaigns and promotions to increase brand and pharmacy awareness.
- **Trade marketing**: Pharmacies can rent their shelves to pharmaceutical manufacturers through the franchisor, generating significant (shelf) income.
- **Reference pharmacy program**: Pharmacies can join the innovative "open shelf pharmacy" concept developed by ALMA Pharmacies, which, as experience has proved, offers significant and sustainable margin increase.
- **Digitalization and IT solutions**: Thanks to Patika Management's IT services, pharmaceutical software increases transparency in operations and efficiency (e.g., tracking special offers, product recommendation modules, and discount management).
- **Controlling support**: Pharmacies receive monthly reports on how they have performed over the respective month (revenue generation performance by product group and by period within opening hours; sales trends benchmarked to the whole network; comparison of basket value by prescriber, etc.)
- **Patient education programs**: Sending e-mail newsletters to registered customer groups on health topics based on their interest in specific therapeutic areas.
- Loyalty program and application for customers: (see later).

Franchising is based on the principle that recipients pay an entry fee when they join and a monthly fee to the franchisor in return for ongoing services. In the case of ALMA franchises, the royalty fee paid by the pharmacies is 15% of the value of the commercial discounts achieved by the pharmacy. They also pay a monthly central marketing contribution and monthly fees for services ordered by the pharmacy.

The franchisor does not engage in commercial activities (nor could it, since pharmaceutical wholesale and retail are subject to licensing). Still, it does develop close relationships with manufacturers of products that can be sold in the pharmacy, especially over-the-counter medicines and other products. The manufacturers pay the franchisor a category management fee, shelf fees, marketing contributions, and advertising fees.

Pharmacies and online retailing

The European Union has no limitations on selling prescription medicines over the Internet. Different national rules apply depending on the delivery address. In Hungary, the sale and purchase of prescription medicines on the Internet is prohibited on the basis that prescription medicines can only be used on prescription and typically under continuous medical supervision. Non-prescription medicines can be sold on the Internet, but since January 1, 2022, they can only be handed over by or in the presence of a pharmacy professional (Act CXXIX of 2021).

Therefore, they cannot be delivered by traditional courier, through a parcel locker or a parcel shop. Selling medicines online does not yet appear to be a commercially attractive market segment, as it involves significant additional costs to have each delivery carried out by a pharmacist or a qualified assistant. Nevertheless, several market players are operating internet distribution platforms, partly for reasons of prestige and partly in anticipation of possible regulatory changes.

In compliance with the legal requirements, one of the largest market players, *Benu.hu*_delivers over-the-counter medicines by the pharmacy staff of Csillag Pharmacy. This service offers free of charge next-day delivery for orders over HUF 20,000. However, this service only applies in the Budapest area. (See Annex 5 for the service area, value limits, and fees.) Although prescription medicines cannot be purchased online, if customers search for such a product on the BENU website, they are redirected to the *Benuveny.hu*_website. Here, they can check the inventory of several BENU pharmacies and make a reservation for the product, which they can then collect in person. Benu.hu also offers a range of additional health-related content: factsheets, descriptions, information on screening programs, and the services of "Foglaljorvost" ("Book a doctor"), a start-up acquired by the OTP Group in 2022. (On BENU's website, one can click on the doctor finder on Foglaljorvost.hu from the articles and content on the given topic, while on Foglaljorvost.hu, those looking for doctors and services will find links to BENU's webshop and Benuvény).

Pozsonyi Patika, a pharmacy in Budapest operates the *Patika24.hu* webshop, which offers both personal collection and home delivery of for over-the-counter medicines. in 11 pick-upis operated by a and about a dozen other pharmacies, also has a professional staff that delivers orders for over-the-counter medicines. The former involves 11 other pharmacies and the latter is not limited to Budapest but also covers Székesfehérvár, as well as a large part of Pest County, and the surroundings of Lake Velence. The minimum order value is HUF 20,000; delivery is free of charge. Personal collection is also possible at participating pharmacies, free of charge, with a minimum order value of HUF 10,000. In both cases, payment by credit card is required (extra charges for cash on delivery), and the delivery time is slower (2-6 working days). The usual delivery options are also available on Patika24.hu for the non-restricted "other products".

A pharmacy in Gazdagrét, Budapest XI, operates its own webshop at *Homeopatika.hu*. Non-prescription products can be purchased by personal delivery only, usually within 2 days, and there is no minimum order value and no delivery charge. In addition, reservations for prescription medicines can be made, but there is no real-time inventory information on the website. The purchase is in person at the pharmacy only. Homeopatika.hu also offers a 10% "Free Wednesday of Gazdagrét" promotion to purchase so-called "open shelf" products and runs an own loyalty program.

A subsidiary of Hungaropharma operates the *Kalmia.hu* website, named after Kalmia Gyógyszertár, an ALMA pharmacy in Monor, near Budapest. On Kalmia.hu, there is a separate category (called "Online pharmacy") for products legally restricted to pharmacies. Orders from this over-the-counter product range are delivered by the Kalmia pharmacy staff within 1-2 working days in Budapest and surroundings, free of charge over HUF 20,000. For purchases from the non-restricted category, Kalmia offers third-party courier and parcel services and rates

that are common in the domestic market. The Kalmia website is more outdated in its appearance and usability than the websites mentioned above and is less well-known to the customers.

ALMA franchise: digital loyalty program and app

ALMA pharmacies renewed its plastic card-based loyalty scheme and introduced the digitalized Alma+ Loyalty Program in 2024. This program is built around a mobile app, although customers can also apply for a plastic card, and the former ALMA Care Card can still be used. The new coupons – that complement the points accumulation and the instant discount on the loyalty card – can only be activated in the Alma+ app, or on the Almapatika.hu website. The main functions of the Alma+ app (or the user account on Almapatika.hu) are as follows.

Loyalty point collection and redemption. By presenting the loyalty card, loyalty points are credited to the customer's profile at a rate defined by the individual pharmacies(usually 1-3 points per HUF 100). However, due to current legislation, points can only be collected for a limited range of pharmacy products, such as dietary supplements, cosmetics, non-medicinal products, or non-medical devices. The legal background also excludes prescription and over-the-counter medicines from point collection, as well as subsidized medical devices, medical instruments, traditional herbal medicines, or infant formulae covered by social security. In addition, no points are credited for the purchase of products on special offer. Customers can redeem loyalty points at the pharmacy where they were collected, subject to the same restrictions on the product range as apply to the collection of points. When redeemed, 1 point is worth one Hungarian forint.

Loyalty card instant discount. With the Alma+ app, customers can view the bi-weekly updated special offers of ALMA pharmacies and even receive smartphone notifications of new promotions. A promotional period usually includes 30-40 products, typically with a 10-20% discount. However, pharmacies may also offer an immediate percentage discount: customers with a loyalty card receive a discount on their purchases at the pharmacy. However, there are exceptions: products subsidized by the social security system are not eligible for the discount, nor are products already on sale. In the app, customers can select their favorite pharmacy to see the discount offered by that pharmacy, which is usually between zero and five percent.

Coupons. A central benefit of the Alma+ app is digital coupons, which offer substantial discounts (20-25%) on products that are typically in demand (e.g., painkillers, vitamins, nasal sprays). The coupons must be activated in advance and are automatically validated when the loyalty card is read by the cashier. Some coupons can only be redeemed once; some can be redeemed several times during the validity of the coupon. Patika Management centrally promotes 10-15 coupons twice a month, valid in most, but not all, ALMA pharmacies.

At the beginning of 2025, we can consider the mobile app with these features unique in Hungary, except, of course, for the app's "sister," the Gyöngy Premium app, also belonging to Patika Management Kft., which serves Gyöngy Premium pharmacies along a similar concept and is running on the same software platform. BENU's mobile application, which was introduced in other countries, is not yet available in the domestic market. Hungary's only other pharmacy chain offering a working mobile app is the Pingvin Patika network (headquartered in

Szeged). Although the Pingvin Patika webshop is quite popular, public feedback indicates that users tend to be dissatisfied with the mobile app.

As far as the ALMA web interface is concerned, the Almapatika.hu website – in addition to the loyalty program, promotions and coupons, and pharmacy locator, as explained above – also offers magazine-like content on health & life and a disease encyclopedia.

Dilemmas

The launch of the Alma+ app has been very successful, with over 100,000 downloads and a positive reception from both consumers and pharmacies. However, there are also negative voices in some pharmacy circles, asking whether it is discriminatory for the franchisor to offer some discounts exclusively through the mobile app: "In the pharmacy where I work, the price of a product, including medicines, is set by differentiating between patients/buyers according to the way they buy. If they download a coupon on a smartphone, they can get their medicine at the pharmacy up to 25-30% cheaper than a low-income pensioner or someone who doesn't use a phone." (Quoted from the XXVI case study of the Hungarian Chamber of Pharmacists.) In contrast, Patika Management, the developer of the Alma+ application, is convinced that the loyalty program extended to smartphones is in line with the relevant legislation and that the discounts associated with it do not violate nondiscrimination principles, as it provides the possibility for everyone to obtain the discount under the same conditions.

Several recent surveys confirm the growing role of mobile apps in online shopping and that consumers generally prefer an app because of coupons and discounts (see Annex 7). Coupons offering significant discounts are undoubtedly the most attractive elements of the Alma+ loyalty program extended to the digital platform, offering users a clear and tangible benefit. However, the possibility of collecting loyalty points is quite limited, as no such discounts can be granted for medicines.

For Patika Management, it is clear that the future is in mobile applications. Still, the question is how to make them more attractive to users while maintaining an innovative market position and considering the constraints of strict regulation. In the meantime, they should not lose sight of the fact that the key to the franchise's success is to ensure that more and more people choose to buy the products from ALMA-member pharmacies.

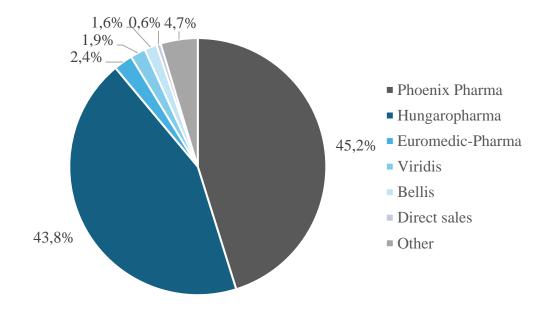
Acknowledgments

The authors would like to thank Dr. Szabolcs Lázár, Managing Director of Patika Management Kft., for his help in preparing the case study.

¹ Full document available online: https://www.mgyk.hu/admin/data/file/20241216/eset-xxvi.pdf

Annexes

Annex 1: Market share of pharmaceutical wholesalers at producer prices in the community pharmacies in Hungary, December 2023



Source: IQVIA

Annex 2: Number of pharmacies in Hungary

Pharmacies	Piece
Community pharmacy	2 259
Branch pharmacy	621
Institutional pharmacy	97
Hand pharmacy	140
Total	3 117

Source: NEAK

Branch pharmacy

Public pharmacy

Public pharmacy

Public pharmacy

Replace Property Property

Annex 3: Size of pharmacy franchise networks at the end of 2023

Source: wholesaler database

Annex 4: Financial data on pharmacy franchise management businesses

Turnover (HUF million)	2020	2021	2022	2023
Patika Management Kft.	2 976	3 429	4 310	4 156
Benu Hungary Zrt.	5 969	6 866	8 161	9 5 1 5
Kulcspatikák Zrt.	1 042	1 208	1 544	2 149
Headcount (December				
closing)	2020	2021	2022	2023
Patika Management Kft.	52	49	51	50
Benu Hungary Zrt.	57	66	61	66
Kulcspatikák Zrt.	4	8	29	40
Fixed assets (HUF million)	2020	2021	2022	2023
Patika Management Kft.	80	126	109	297
Benu Hungary Zrt.	8 208	7 323	7 246	7 530
Kulcspatikák Zrt.	38	36	95	221
Current assets (HUF million)	2020	2021	2022	2023
Patika Management Kft.	1 313	1 787	2 033	2 301
Benu Hungary Zrt.	6 530	5 797	6 291	9 600
Kulcspatikák Zrt.	316	620	734	926
	1	1 1		

Source: e-beszamolo.hu

Annex 5: Webshop services on Benu.hu

Products in basket	Over-the-counter medicines	Mixed: over-the-counter medicines and other products (vitamins, cosmetics, etc.)	Other products only (vitamins, cosmetics, etc.)
Delivered by	Pharmacist or	Pharmacist or specialist	MPL courier service
	specialist assistant	assistant	(parcel delivery or
			Postapont), Foxpost
			parcel locker
Service	All Budapest districts	All Budapest districts	National
availability			
Minimum order	HUF 10,000	None	None
Delivery cost	Free	HUF 1,990 (over HUF	From HUF 990
		20,000 free of charge)	
Payment method	online payment by	online payment by credit	online payment by
	credit card at the time	card at the time of order	credit card or cash
	of order		on delivery
Delivery	1-3 working days	1-3 working days	1-3 working days
deadline			

Source: https://benu.hu/budapest-gyogyszer-hazhoz-szallitas

16:30 🗷 🗭 🌲 • 16:08 🌩 🛊 🚯 • ₩ You 45 all 74% Akciós termékek \equiv **(** \equiv Keress termékre, kategóriára... Q Hűségkártyám Kuponok 12 → 0 0 Kedvenc termékeim Magne B6 bevont tabletta, 180 db MAGNE B6 莊 43 termék Baba-Mama (5) \Diamond \Diamond Aktiválom -25% Inofolic® mio-inozit Sudocrem krém és folsav tartalmú 250g étrend-kiegészítő Akciós ár 5 329 Ft 10 919 Ft 5/25 57.5 3 € Föoldal 0 0 公 € Patikák Főoldal 111 |||0 \bigcirc

Annex 6: The Alma+ app - screenshots

Annex 7. Trends in shopping-related mobile apps

According to a survey conducted by Kantar-Hoffmann in 2023 on a sample of 15,000 people², more than 70 percent of Hungarians use a smartphone to access the Internet, while less than half use a laptop, and only one-third use a desktop computer. Smartphone internet usage is highest in the 16-29 and 30-39 age groups (80% and 82%, respectively) and lowest among those aged 60 and over (51%). The survey found that 87 percent of the population aged 16-75 have a smartphone and 83 percent a mobile internet plan.

According to research published by Shell Hungary 2025 at the beginning of the year³, 59% of Hungarian smartphone owners use a digital loyalty program, i.e., an app offering discounts. Grocery store mobile apps are by far the most popular, with five out of six smartphone users surveyed using one. However, nearly half of respondents also have an app for petrol station networks. Clothing and cosmetics are following in the digital loyalty card penetration ranking, with a share of more than one-third.

More than half of smartphone users surveyed by Shell⁴ shop with a mobile app. The app is the most popular choice for clothing (59%), particularly among women and the 30-39 age group. In contrast, men are more likely to buy electronic goods (46%) through phone apps, and both genders similarly purchase electronic tickets (39%) or food and household goods (34%) through a dedicated mobile app. The survey results show that users prefer an app for its coupons and discounts.

The growing popularity of mobile apps is indicated by the fact that only 25 percent of Hungarian internet users (1.55 million people) were using some kind of online shopping app at the time of the GKI Digital market research company's 2021 survey⁵. Even then, the figure was already around 35 percent in the 18-29 age group. Although, in recent years, shoppers have been demanding that online stores optimize their user interfaces for smartphones, dedicated mobile apps are increasingly popular, according to Reacty Digital's 2024 survey⁶. According to this research, more than half of those using a smartphone or tablet prefer an app (56%), although many people favor a responsive website (37%), with a narrow group unsure which they pick (7%).

² Source: https://www.oeconomus.hu/irasok/eletunk-parja-az-okostelefonok-fuggoi-lettunk-az-evek-alatt/

³ Source: https://mmonline.hu/cikk/atalakitjak-a-vasarlasi-szokasokat-a-husegapplikaciok/

⁴ Source: https://mmonline.hu/cikk/atalakitjak-a-vasarlasi-szokasokat-a-husegapplikaciok/

⁵ Source: https://www.digitalhungary.hu/e-kereskedelem/Megvan-melyik-mobilappal-a-legelegedettebbek-az-online-vasarlok/12892/

⁶ Source: https://mmonline.hu/cikk/igy-valtoztak-az-online-vasarlasi-szokasok/

The effect of Covid on Amigos

Strategic and cultural challenges

Sándor Takács, Sára Forgács-Fábián

The brief history of the Foundation

"We are a charity organization made up of college students. Our goal is to make the days of seriously ill children more beautiful through a useful tool: language learning. Learning is complemented by crafts, play, and making friends; the point is to spend time together in a fun and rewarding way." This is how the amigos introduce themselves when they encounter someone. But what does this mean in everyday life? What can one know about this group of college students, and why is it important to help children?

Sára Fábián spent 1 year in the hospital as a child at the age of nine. "This period was decisive for me. Even if my parents did everything they could to avoid lagging behind in my studies and not getting bored, I still missed my friends very much. Then, I also saw that some children's parents could not be present and realized I was in a privileged position,"- says Sára, the dreamer and founder of the organization. That's why she decided at the age of 20, during her first years of college, that she wanted to help those in a similar situation today. She chose making friends as a healing tool and started visiting the child patients of the Tűzoltó Street Clinic in Budapest with her 10 student friends. Volunteer help through the circle of friends became more and more popular among the students, and they were continually receiving inquiries about how to join them.

Thus, in 2015, when they had been operating for a year, they started to build an organization consciously, the foundation was established, a recruitment system was developed, and operating mechanisms were considered. From the beginning, they thought along the lines of participation and experimentation: they wanted to come up with adequate organizational solutions, they built an inclusive organizational culture from the start, but they also believed it was essential to allow time for trial and error. Therefore, any systemic and structural solution was only considered final from the second use onwards, that is, a conscious effort was made not to set an example until everybody (especially employees, management and volunteers) felt that they were delivering the desired results in terms of their core organizational vision on a sustainable basis. Which is nothing less than to one day have an amigo for every permanently hospitalized child in the world. This requires professional organization and many enthusiastic university students.

Currently, only students in higher education can join the organization because this age group is still close to children and can be friends while setting an example. At the same time though, they are more mature, young adults, while some already have work experience. Moreover, they

¹ Throughout the case study volunteers are called 'amigos' and as the foundation is called Amigos for Children, we are going to refer to the organization with large caps ('Amigos') and to volunteers with small caps.

are flexible, as students can quite easily fit one session per two weeks into their university schedule.

After the first hospital quickly followed a second and third. In the fourth year, the foundation started its rural expansion. In 2018 it first established a volunteer team in Szeged, in 2019 in Debrecen and Szombathely. In early 2020, the amigos were already active in six institutions in Budapest, and in three cities and four institutions in the countryside.

Their main management, social impact, and organizational features are summarized in Annexes 1 to 4.

A typical working day of an amigo

"Flexibility is one of our number one principles" - says a volunteer helper, an amigo, as they call themselves. Every hospital and every session is different. "There are also times when we learn with a child over a longer term and prepare with week-by-week built sessions, but that happens less often. Usually, we don't know who will be waiting for us in the ward, how many there will be, and whether they will feel like studying with us, playing games, or wearing VR goggles. We enter with our box, which has a lot of different tools, and we simply shout out that the amigooooos are here! Then comes the most exciting part: how children and parents react. In whose eyes we see a sparkle. We pay attention to the uncertain but longing gazes, and, well, there is someone who will jump out of bed to hug us. Surely, we respect if someone prefers to be alone," - says an experienced amigo.

The head of the organization also sheds light on the impact on parents. It's a big help for the parents to be able to get away for one or two hours, whether they are just taking a walk or paying utility bills at the post office. The main thing is that they can get out of the hospital environment knowing their child is in good hands. Because hospitals work with strictly confidential and GDPR-sensitive data, amigos often only know the child's first name. (If they are in the hospital, they can meet; or parents can contact Amigos in a Facebook message, or by phone; but there is no such thing as a list or database of children in the hospital.) The organization contracts with the hospital and relationships with families are evolving organically. It is important to see that there are several support organizations in the hospital: hospital educators, special educators, clown doctors, and other initiatives that support the well-being of children, and Amigos is one of them. What makes the amigos special is that because of their age they are closer to the children.

Amigos mainly help maintain and build children's self-confidence, along with language learning and play. After all, which eleven-years old child wouldn't feel very cool boasting it has college friends?! When they return to school after a couple of months or years of being missed, they are facing the challenge of reintegration into the community, and having college-level friends can mean a lot. Hospital educators are professional teachers who can even give school grades, so children don't have to repeat a year. The amigos complement their work by practicing with them — primarily languages — and making friends, building self-confidence. In addition to children, the impact on parents is also important, as has been said before. Let us not forget that today's university students will be responsible decision-makers of the future who

will infiltrate social sensitivity into business organizations. The amigos form a close community, and they need to belong together (which, for example, is symbolized by their green hoodie that can only be owned by an amigo, the many team-building events and the amigo brand that they have to deserve). The organization's leaders believe that one of the most significant challenges of the 21st century is the lack of community, and exactly this will be given to young people.

The Amigos organizational and operational model

The operation of the foundation is based on voluntary work. All volunteers study in higher education, the foundation does not work with high school students due to the severe emotional strain. The attitude of the amigos always emphasizes a positive attitude, but it is important to see that it is an emotional job. Unfortunately, there are examples of amigos losing a child with whom they have developed a close relationship. In these cases, joint processing and psychoeducational occasions help the involved. Working with high school students implies a higher risk than young adult college students (although it is often difficult even for them).

On average, a volunteer is active in the organization for two years, typically joining during the undergraduate program. Still, there are several volunteers recruited during the master's program. Dedicating two hours every two weeks to hospital sessions is the basic expectation towards volunteers, as well as following the organizational news and attending one community meeting per month. In addition, they can participate in other volunteering activities (fundraising or developing learning materials) based on their own competencies and preferences. Communities are organized principally on the level of cities, with smaller working groups for each hospital.

After completing the necessary training, each amigo is allocated to a hospital each semester, which he/she visits every two weeks for 2 hours on a pre-arranged day. For one visit-day always the same four amigos are scheduled, so two people are scheduled on week one and two others on week two. In order to coordinate, the volunteers pass the information to each other through internal Slack channels and Google spreadsheets. For example: "I met a five-year-old boy in internal medicine today, and he's waiting for us tomorrow. He really likes to play with Duplo blocks, @Mary, don't forget to visit him tomorrow." Each hospital is run by a so-called hospital manager, a volunteer amigo who also visits that hospital regularly. The work of the hospital managers is coordinated professionally by a paid employee the Chief Children's Happiness Amigo.

In addition to hospital visits, the community is also an essential pillar of the organization. Hence, another paid employee, namely the Chief Community Amigo, is responsible for organizing community events and building the community. The Chief Community Amigo work is supported by city leaders who coordinate the smaller community locally. City managers are chosen by the community, while hospital managers are selected by the Chief Happiness Amigo based on motivation and competence for a term of six months. The involvement of the volunteers' community illustrates how important a democratic and inclusive operation is in the organization. To channel and represent the views of volunteers, each city has a local board of

3-5 members who are elected by the local volunteers by secret ballot (and re-elected by the board every six months) at the beginning of the university semester. The volunteer city manager is also a board member, elected for 1 year by the community (January to January) and tasked with facilitating knowledge transfer between the sitting and new board at semester change. The board is responsible for community and hospital-related decision-making at the local level, while the organization's board of trustees makes decisions at the strategic level. There is a minimum monthly regular exchange of information between the boards (4 separate boards in 4 cities) and the board of trustees, mainly in the form of reports and written communication. Still, sometimes ad hoc communication may be necessary in the context of an exceptional situation.

The organization chart of Amigos in spring 2021 is presented in Annex 5, and the employees are summarized in Table 1. In addition to the Amigos officers mentioned above, paid employees include the Amigos Mini in charge, the office manager/financial assistant, and the fundraiser. Sára, Chairman of the Board of Trustees and Chief Operating Officer of the organization, also belongs to the paid staff, so including her, the organization has six paid employees, most of them working part-time.

Some volunteers also directly support the employees. , In addition to going to the hospital, volunteers can also take part in the work of back-up teams, but all volunteers can take part in some kind of support tasks (such as fundraising, communication, curriculum development, application writing, social media management or community management) - at the expense of the volunteer's working time. One of the paid employees coordinates the activities of the back-up teams and a volunteer team lead is chosen from and by the team members of each support team.

Table 1: The "employee team"

Happiness team	Sustainability team	Helpers (volunteers in 20 hours/week)	Head of organization
Chief Children's Happiness Amigo (30 hours/week)	Office Manager and Financial Assistant (30 hours/week)	Professional Assistant to the Chairman of the Board of Trustees	Chairman of the Board of Trustees (40 hours/week)
Chief Community Amigo (30 hours/week)	Fundraiser (15 hours/week)	Trainee (not paid)	
Chief Amigos Mini Officer (30 hours/week)			

[&]quot;Back-up teams work with a lot of volunteers who work for us for free, but the physical implementation and operation is already costing money, although we strive to get whatever we can as a grant," – Sára explains. Volunteer teams also write fund applications for camps to

reduce participation fees, develop teaching materials and edit websites. They apply for these assignments every semester, but each team needs at least one person who stays on for one year.

"In our experience team dynamics works well with up to five people. If eight have applied, we will not choose who to be, but we will call them in and they will select those five from each other. Thus, the commitment they make is much greater (if they know someone else had to give it up). It was a learning process to be the way to go. If there are conflicts, we also throw in the Chief Community Amigo, who helps to facilitate along our values (e.g. 'we always assume the best of each other ...'). It is not like only telling them 'solve it somehow...', but at the same time, we don't solve the issue instead of them. There are Amigos boards at the local level, they decide on community issues, e.g., if someone hasn't been to the hospital in a while, we don't fire them straight away. Instead, they're talking about it on the city board and then also with the amigo, and we will try to solve it if there is a problem. But we have also said goodbye to each other a few times. From the new cities (where a new hospital connection came in), someone first joins an existing nearby board to learn how things work," - Sara details the operation behind the organizational chart (see Annex 5.).

Otherwise, there have been very few problems in the work of volunteers because of their great emphasis on selection, training, the transmission and maintenance of shared values, as well as continuous community building and individual development. The most important key to this is the selection process, which is one of the most defining HRM tasks of the foundation. Like everything else, this process is based on the principles of transparency and equality. Prospective volunteers are selected by active volunteers through a multi-phase recruitment process. The first round is in writing and candidates have to draw, write a poem, and solve problems. The second round is oral; the candidate has conversations with five amigos. After this, a ranking is made based on the scores achieved on the anonymized written task and the 'face-to-face' conversations. Another moderating factor may be the languages the candidate speaks or whether he or she is able to hold sessions, but the main determining factor is the candidate's commitment to helping others. "A fine little trick is to submit the application form on paper, i.e., by post. This generation is not very used to going to the post office or writing much by hand. Anyone who is late would be late from the hospital too," says Sára.

The selection of paid employees is also an important issue in the life of the organization. While the city boards are concerned with the selection and development of volunteers, the board of trustees is engaged in the selection and development of amigo managers. Amigo executives are also invited to the annual board retreats, they also can make comments, but the decision is made by the Board of Trustees. There are longer strategic meetings every six months, and a three-day retreat is held once a year. In the meantime, the Board of Trustees meet one hour weekly online or by telephone. "We recently had an amigo officers' meeting where we also discussed how there should be a division of responsibilities between the board of trustees and the boards in 1, 3, and 5 years, so where the organization is going," – explains Sára.

Recently, the job of Chief Community amigo has expanded rapidly as the organization has grown, and now barely fits in the 30 hours a week she has available next to her university obligations. At the same time, her salary is roughly comparable to the salary of an intern working at a multinational. Organizational and operational activities were further complicated

by the epidemic, which is why the Happiness team was set up, but even so, there was not as much time left to gather feedback from volunteers as in previous years. Yet, as they say, "the happiness of children also depends on their happiness."

Another key pillar of the operation is the involvement of volunteers in the decision-making processes of the organization. Sára talks about this: "Back in 2017, we came up with the idea that it would be good if the most experienced volunteers joined the Board of Trustees. They were able to nominate themselves by the volunteers, the nominations were commented on by the local boards, amigo officials and the Board of Trustees. It is difficult to judge how well this process worked because two people applied for two places and everyone supported them to the maximum. We elected them for three years. Volunteers also voted, even though they are not members of the foundation, but we do nothing only as a 'legal obligation'. So now we have the Little Board of Trustees and there is the Big Board of Trustees, in the Little there are the two alumni we have selected, and me, we are involved in the management of the amigo managers close to the local organization. The big one still includes two senior professionals, they help from further afield, adopt the annual report and comment on the strategy."

Strategic goals

Sára dreamed big and stated from the outset that the goal was to one day have an amigo next to every sick child in the world. "We want to have amigos in every child oncology center in Hungary first (Miskolc and Pécs are still waiting for us), and then we can be present in every city with a children's ward. Meanwhile, we plan for foreign growth, researching what model the organization could operate along, and not just in the surrounding countries, but even on every continent. I believe that regardless of the development or underdevelopment of the healthcare system, we represent a universal value that is needed all over the world. We bring friendship to the walls of the hospital."

To achieve even short-term goals though, the organization needs sustainable sources of funding. Currently, the operation is funded through tenders and private and corporate donations, but the idea of social enterprise has also been raised many times. "Unfortunately, so far we have always proved why an idea is not feasible,", states Sára with some self-irony. Expenditure includes mainly salaries, costs related to sessions (equipment, toys) and expenditure related to the training of volunteers (training costs, team building, events).

Two main models came to mind during previous brainstorming sessions concerning the development of a social enterprise in the organization:

- 'Amigos for parents' models
- language teaching and child development models.

So far, the foundation has hit walls on both lines, and we will highlight a few main arguments below, including a brief outline of the models.

'Amigos for parents' models

When a child is hospitalized, one parent (usually the mother) wants to be with him or her at all times, which is most often also allowed by the health institution. This, in turn, means that the mother or father may become incapacitated. State financial aid schemes support the family with rather minimal amounts, which is a particularly big problem if we are talking about a broken family. One of the team's ideas was how to employ parents of sick children while staying with their child in the hospital. The biggest problem in this model was the highly divergent level of education of the parents as well as the fact that the hospital environment is not suitable for performing a telecommuting job. Families come and go depending on the examinations scheduled and the condition of the children changes from one moment to the next. This makes it rather impossible to work for the caregiver, physically as well as mentally. This unpredictability and lack of continuity is a huge disadvantage on the labor market of course.

Language teaching and child development models

It has been said many times that the amigo sessions could even be paid for by families who can afford it. However, according to hospital practice, the parent is often not there in the ward, or if he or she is present, to ask at a fiercely evolving UNO party that 'could you please pay for this session' is not realistic in practice. Since many families only meet with the amigos occasionally, apart from the fact that there is no contractual relationship between the parties, the model that the sessions come with some form of financial compensation is difficult to implement and ethically questionable. The organization completely withdrew from this solution.

But the question remains how to make the operation more sustainable and less vulnerable to donors.

The effect of Covid in 2020

In March 2020, it became clear that the pandemic would radically change the way the Foundation operates for an unpredictable period of time. As the amigos say, one of their main virtues is flexibility, so they react quickly to the situation.

They came up with the following five programs:

1. Amigos Online Hospital

Tablets were lent to hospitals, and the goal was to reach children temporarily through tablets instead of personal visits. This method has proven to be less functional due to the load on the healthcare personnel. Classes were closed, and children moved unpredictably between their homes and hospitals, because those patients, who could be cared for at home as well, had to leave the hospital, because everybody was sent for home care who could possibly withstand it. In early 2021, the Online Hospital program was rethought and redesigned by the organization.

2. Amigos Online Home

This is a long-term home session program with sick children recovering at home, in which two amigos study with one child throughout the semester. This program performed well during the pandemic, with approx. 50 children, several months of continuous co-learning took place (in pairs, two amigos per child).

3. Amigos Extra

As high school students preparing for their final exams found themselves in a difficult position with distance learning, and the amigos discovered that they could help elsewhere as language-speaking students, amigos opened the gates for this group. The program was launched specifically for socially disadvantaged high school graduates, and thanks to the program students successfully prepared for their graduation.

4. Learning tablet mentoring program

The program is aimed not only at sick but also at disadvantaged children, where children participating in the program rent a tablet. The tablet rental is accompanied by a mentoring program to help students achieve different goals selected by the children (e.g., they learn to cook, write a volume of poems, or learn math).

5. Amigos Mini

The program that appealed to most kids in 2020 was the Amigos Mini. Again, the skills development session is aimed not only at sick but also at disadvantaged children. The program entails online storytelling and LEGO cube sessions in small groups (with a maximum of eight children and two volunteers). "During the amigos Mini sessions, we develop memory, fine motor skills, creativity and the ability to concentrate in small groups. Topics include science, music, nature conservation, with a focus on social sensitization." (Amigos 2021) A special feature is that all children participating in the program receive a pack of LEGO bricks in the mail free of charge. (https://mini.amigosagyerekekert.hu)

Old-new dilemmas of Amigos Mini

The Amigos Mini program was put together from idea to implementation in the summer before the 2nd wave of Covid (June-August 2020). (Annex 6 presents data for the first months of impact analysis). An in-house content development team constantly invented stories, LEGO added packages. Session times could be assigned on Zoom, for the purpose of which the team developed an online interface with the help of an IT expert, through which parents could register their children a few weeks in advance for a session. The program was mainly designed for disadvantaged children; two amigos held an online skill game for eight children in an online session who had received a package of LEGO sets in the mail for which they were given tasks in a virtual meeting. At the beginning of the semester, volunteers were able to apply in which program they wanted to participate in, and 'on an experimental basis' (similarly like other innovations generated by the epidemic) the program started. Soon, it became clear that it was very popular with children and their parents. Sick children could also apply for it, but as one of

the volunteers put it, "in a crisis situation, almost every child is considered in need because they cannot meet their classmates, and their parents are too busy to deal with them...".

According to the volunteers, the program does not give the amigos the same experience as hospital visits. This was particularly striking for those who had experienced in previous years the experience of actually entering hospital wards where sick children live their daily lives and could immediately experience the impact of a personal encounter.

"For the very first time, I was pretty scared of what it was going to be like, I was full of worries that I wouldn't be able to connect with the kids. Although we received a few days of preparation and this gave us some idea of what we can expect, what situations may occur and what sort of tools are available, but based on that, I couldn't see myself being able to do all of that. All I knew was that I wanted to help, but whether I really could, was uncertain... Then when we kept the first session. And when I left the hospital, I felt incredible energy and joy, I was fully charged and I thought it was a good decision, therefore, to say that I would take 3-4 hours of my life every two weeks this semester," one of the volunteers, a student attending technical university, expresses. "Besides, of course, it's also important that you can break a little out of everyday life, it's good to meet your partner in the hospital beforehand; there are good community opportunities, you can meet people from other universities (somehow there are seldom such honest relationships between fellow university students, as with the amigos) and if I have an exam or something I have to do, I can definitely expect someone to jump in for me, so it's flexible enough too."

Some work experience can be gained in addition to visits at various development groups, which also require additional time on a voluntary basis (one can commit him or herself at the beginning of a semester) but still mean less time and pressure than taking a job while attending university. This work also gives the feeling that "we actually shape the framework and run the organization ourselves, but at least we have a significant say in where we go, what values we operate along, and what we represent," says one of the volunteers who was working in the organization 2.5 years ago.

In comparison, online sessions are less of a flow experience. The experience of success or the joy of children can also be experienced after a successful session. However, these sessions are often hampered by technical difficulties and limitations, internet communication does not work with everyone, parents have to be helped through technical barriers, sometimes one participant 'breaks down' on the go ... The feeling of breaking out is missing, the two hours spent with children are blending into the sequence of other daily online classes and meetings, before and after almost immediately other online programs are lining up. And quite fundamentally, the kind of 'cathartic' effect, which is typical of the hospital sessions, rarely happens online.

"What should I propose to the Board of Trustees?"

Ideas have already been raised for making some of the services payable, but these have been rejected. During hospital visits, all this is hard to imagine, although there is also a story circulating that one of the parents, seeing the impact of the visit on the children, wanted to pay the amigos on the spot. The story ends with the amigos explaining to parents that they are doing

this as a volunteer and, of course, don't expect any consideration, as the family and the young patient are likely to need the money much more. And, of course, they don't want anyone to get more attention for their money just because their parents can afford to pay. As an individual or a company, of course, it is possible to support the work of the foundation (in the meantime, with the acquisition of public benefit status, they were also able to receive 1% offerings, in 2020 nearly 4.5 million HUF was received through this channel) and it also happens that the foundation receives significant support through the firm of a parent.

The introduction of the Mini package has re-opened the possibility of supporting the organization financially through the service provided. In the online booking system, you can book an appointment for 0 HUF for the time being, and the different categories of entitlements are indicated (e.g., health care workers; the per capita income is less than 100 thousand HUF in the family, ... etc.), but are not yet effective. The system would already be able to accept credit card payments. However, this possibility has provoked contradictory reactions within the organization.

"From the outside came such ideas that, for example, the Amigos Mini could be paid for by those who do not belong to any of the beneficiary groups, but it is equally important for parents that their child receives development and care... Currently, they also participate for free, even though they would not really need it. But many in the organization feel that 'since we are volunteers, this is out of the question'. It may work that if someone likes the session and can afford it, they can support the organization... If it were paid, but they found out that it was free for someone, then according to 'good' Hungarian custom, after a while, everyone would come up with an entitlement. We wouldn't be able to (and probably wouldn't want to) check the need anyway," one of the volunteers explains.

"We simply can't ethically expect to volunteer for free while we get paid for the service," says one of amigos' paid employees. "I don't think that would mean significant revenue, and as long as there are enough donations, it's not worth risking that volunteers turn away from us for that. Our child protection principles also preclude our volunteers from accepting gifts."

However, Sára coined some arguments in favor of the 'pay according to your purse' principle. Service users will appreciate something more, if they don't receive it for free, as a 'gift'. Compare it to corporate language learning, which is taken more seriously by those who themselves contribute to its costs. Amigos might also feel more responsible for the service they provide if they know someone is paying for it. Of course, the question immediately arises as to what distinguishes this from a job, say, offered by a student cooperative, where they would even be paid for it. One thing is for sure, namely the goal of the foundation: because children's happiness is written on the foundation's flag, and if they had more resources at their disposal, there would be more children having an amigo standing next to them. The foundation's employees could also feel more esteemed in a financial sense as well. With these thoughts in mind, she set out for a walk on a weekend at the end of January as she thought of the upcoming Board of Trustees meeting, where she wanted to put this issue on the agenda.

Your task: Create a short and medium-term action plan to respond to the strategic challenge in Sara's place?

Annexes

Annex 1: The 2019 income structure of the Amigos for Children Foundation

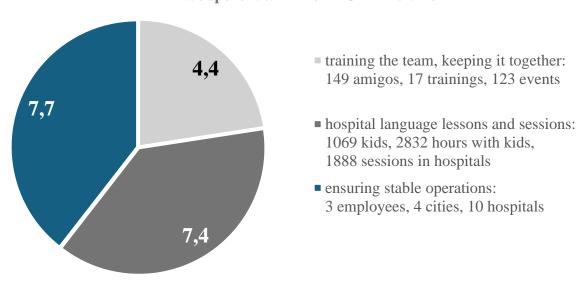
We generated 35. 9 million HUF revenue in 2019 from



Source: The website of amigos for Children

Annex 2: The Amigos for Kids Foundation's 2019 expenditure structure

We spent 19.5 million HUF in 2019 for



Source: The website of amigos for Children

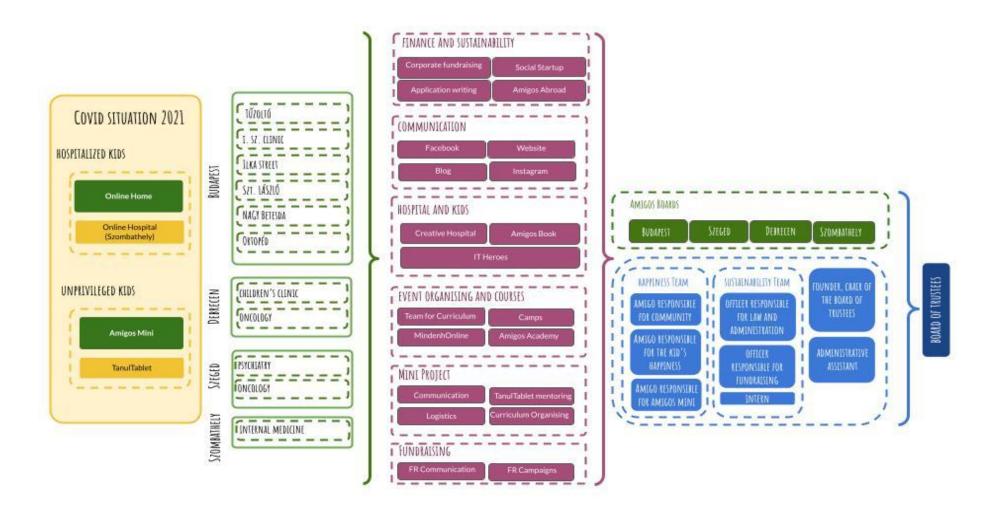
Annex 3: Changes in the main economic and employment characteristics of Amigos between 2019 and 2020

	2019	2020
Management		
Revenues	35.9 million forints	76.8 million forints
Expenditures	19.5 million forints	43.2 million forints
Human resources		
Paid workers	3 people: Chief Happiness amigo Chief Sustainability amigo Head of organization: chairman of the board of trustees	6 people: Chief Children's Happiness amigo Chief Community amigo Chief amigos Mini Officer Office manager and financial assistant Fundraiser Head of organization: chairman of the board of trustees
Volunteers	149 amigo	170 amigo

Annex 4: Summary table of the Foundation's key impact indicators (2019, 2020)

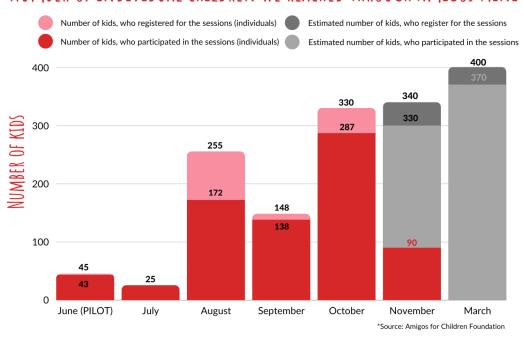
	2019	2020
Number of sessions done	2120	990
Number of children reached	1069	3682
Number of languages spoken	21	21
Number of hospitals	10	12
Online programs	-	amigos Online Hospital amigos Online Home Learningtablet amigos Extra amigos Mini
Donation programs	around 1000 LEGO sets	around 7000+ LEGO sets

Annex 5: Organizational chart of Amigos in spring of 2021



Annex 6: Key impact indicators for the Amigos Mini in the first year of Covid

NUMBER OF INDIVIDUAL CHILDREN WE REACHED THROUGH AMIGOS MINI



Greening of BlueCloud Solutions

Róbert Marciniak

"Every investment decision is a strategic decision," said Josef Künstler, CEO of BlueCloud Solutions. However, he finds himself making an even more difficult decision than usual. The planned investment in artificial intelligence (AI) infrastructure could mean implementing a growth strategy based on an explicit customer need and potentially gaining a competitive advantage. Not investing could mean strengthening the corporate sustainability strategy and avoiding some market and financial risks. However, the decision was weightier than the task of balancing competitive advantage with sustainability and risk avoidance, and it was under time pressure due to fierce market competition.

BlueCloud Solutions (hereafter referred to as BlueCloud) is a technology company with offices in several European countries (Germany, Denmark, the Netherlands, UK, Italy, Switzerland, France, Czech Republic, Austria, and Sweden) but was founded and still managed from

Düsseldorf, Germany. Initially a software development company founded in 1995 by Jörg Boden and Josef Künstler, it was only later, inspired by the international success of Amazon (Amazon Web Services, AWS) and Microsoft (Microsoft Azure), that cloud technologies became the company's main profile from 2011. Initially, only Infrastructure as a Service (IaaS) rental and then Platform as a Service (PaaS) were the main growth drivers. However, the real



take-off of these services did not occur until the 2020s, when cloud services became a key solution for midsize and large enterprises. By this time, the spread of Software as a Service (SaaS) had become the dominant trend among enterprises, and BlueCloud was the main driver. Their early market entry and rapid international expansion strategy enabled them to gain a dominant market share in Europe (covering 18% of the medium and large enterprise segment in 2025). Still, the waves of the COVID-19 epidemic also significantly accelerated the virtualization of enterprises and the advance of digital transformation.

The company became a public limited company in 2015. Following its IPO in 2020, it will be included in the TecDAX index of technology companies in 2024, with a dynamic increase in market capitalization. In 2025, its total workforce exceeded 2,500 employees, of which 1,100 were based in Germany. As a listed company with more than 1,000 employees, BlueCloud was already subject to ESG¹ requirements in 2024, but the Corporate Sustainability Reporting

¹ The European Union's ESG (Environmental, Social, Governance) framework (directives and regulations) aims to encourage companies to act responsibly in order to minimise environmental impacts, promote social responsibility and ensure transparent governance.

Directive (CSRD), which was adopted in EU Member States in 2022 and will be phased in from 2025, imposed additional detailed and audited sustainability reporting requirements on the company. In addition, the adoption of the EU Taxonomy Regulation has provided companies with a classification system to determine which economic activities are considered sustainable. This has been complemented in Germany by the Supply Chain Act (LkSG), which will enter into force in 2023 and requires environmental compliance throughout the supply chain. These will help investors to make more informed decisions, particularly regarding sustainability. ESG compliance has thus become not "just" a legal obligation but a key long-term driver for corporate competitiveness.

The company has focused on traditional data centers. Still, it has also operated two hyperscale centers characterized by huge parallel processing capacity, international service delivery, advanced cooling solutions, artificial intelligence and data processing capacity, and easy scalability. BlueCloud's primary services are built around four major areas for the 2020s:

- AI and data center services: providing storage and computing capacity for business customers.
- **Server room rental**: dedicated server rooms for medium-sized businesses.
- **Monitoring services**: ongoing system monitoring and maintenance.
- **Network security solutions**: with the continued rise of cyber-attacks, protecting customer data from cyber-attacks has become the fastest-growing service area.

BlueCloud's customer base ranged across various industries but was dominated by large multinational and regional or European mid-sized companies. In several countries, it has managed to attract government and municipal customers as well as business customers.

2023 was a watershed year for the company because it recognized that there was incredibly significant business potential in the enterprise's use of generative artificial intelligence (GAI), with companies keen to exploit the technology for business purposes, generating unprecedented market demand for supporting infrastructure.²

The explosion of GAI solutions and the growth in the number of users has brought new challenges for the company. AI-based applications and models require increasing amounts of data and resources to run them. Several of BlueCloud's customers have indicated that they need more computing capacity to meet their rapidly growing AI needs. Even if the data center market growth will slow as the hype around GAI subsides, it is expected to remain in double digits for a long time to come, significantly higher than the normal infrastructure market. BlueCloud has realized that it needs to modernize its infrastructure to efficiently serve enterprises' GMI

² Processor companies have soared on the back of the enormous interest in GAI. California-based NVIDIA

tenfold between 2023 and 2025, becoming the world's most valuable public company in 2024 with a capitalization of US\$3,600 billion, of which US\$2,200 billion was achieved in 2024. (Forbes, 2024)

Corporation stood out as one of the biggest winners in recent years with its advanced graphics processors, dominating 80% of the total market in 2024. The company's GPUs (notably the H100 and Blackwell GPUs) can process data faster and in parallel than traditional processors, which are increasingly in demand due to the computing power of supercomputers and high-performance computers. The company's share price increased

applications. This increased computing capacity demand required the purchase of new servers, upgrades to cooling systems, and power optimization (Kienle, 2024).

The development projects were sponsored by the exceptionally talented and experienced Julia Stein, the Head of Innovation and Technology at BlueCloud. Stein, one of the few female leaders in the male-dominated IT space, has progressed from junior developer to senior management over several decades of hard work. When designing projects, the company's president, Künstler, was adamant that the success of the developments would determine the company's future growth trajectory, and Stein was incredibly determined to take on her responsibilities. He quickly appointed project managers, with whom he formed project teams to prepare the infrastructure development for the AI services. Preliminary economic and return indicators for the realization of the service development goals well supported the expected financial success of the investments. They could provide a temporary competitive advantage if implemented quickly. Under Stein's leadership, the teams have shown maximum commitment to the rapid implementation of innovation improvements.

There was no senior sustainability manager in the company. The area fell under Samuel Stern, Head of Finance, where Controlling was responsible for collecting data for reporting, while Finance provided technical support for financing and accounting for investments. While there had been talk in senior management about transferring the area to Legal Manager Klara Schmidt for legal compliance, there was also talk about hiring a new dedicated sustainability manager. In the meantime, Ronald Müller has been appointed project manager for ESG reporting and is responsible for coordinating the reporting process. He did not have his own team, but he had good relationships with everyone and always managed to set up the right project teams with the support of the functional managers.

Müller, in agreement with the Finance and Legal Director, had three main tasks:

- 1. **Increasing energy efficiency**: preparing and leading developments to reduce energy use in businesses and find more efficient cooling solutions.
- 2. **Use of renewable energy sources**: preparing and leading investments that support the transition from fossil energy to renewable energy sources.
- 3. **ESG compliance and transparency**: continuous development of indicators for ESG reporting, establishment of data reporting processes, regular environmental reporting, and publication to stakeholders.

Müller has repeatedly indicated to the CFO that the implementation of the AI investment would significantly increase BlueCloud's environmental footprint and worsen its compliance with ESG requirements. While Stern shared Muller's concerns and saw further financial and investment risks in the growing investor focus on ESG compliance and the fact that non-compliance or deteriorating results could lead not only to reputational damage but also to a loss of investor confidence and, in the long term, to a deteriorating market valuation and lower credit rating, he did not share these risks with Künstler, the company's chairman, who has taken a strong pro-investment stance in executive forums. Stern did not want to lose the confidence of Künstler, who was close to retirement, especially as he was a major contender for the presidency in 1-2 years.

Müller has also compiled a report on the high energy demand of data centers, especially the powerful computers needed to run artificial intelligence³, which is predicted to double in a short time⁴, increasing the company's carbon footprint but also leading to a significant increase in the demand for drinking water for cooling⁵. Research has shown that there is not enough green energy to meet the energy hunger of data centers worldwide. Therefore, the energy supply has been the main impediment to data center market growth.

The Al Boom Context 2022 345 110 2026 576 157 90 100 200 300 400 500 600 700 800 900 ■ Traditional data centers ■ Cryptocurrencies Dedicated AI data centers

Figure 1: Electricity demand in terawatt hours

Source: International Energy Agency

According to Müller, there is a need to change the widespread practice that the introduction of information technologies or systems that already exist and are available to business is typically driven only by the need to improve the efficiency of organizations' internal operations or develop products for customers. In these cases, the objectives can also be supported by economic and payback figures, i.e., technologies or systems are adapted which, depending on the strategy, will provide a competitive advantage to the company over some time horizon. However, when it comes to the requirement for sustainability in relation to information technologies and systems, there is often a conflict between economic drivers and environmental considerations.

A typical example of such an enterprise, also at BlueCloud, was the application of digital transformation to specific processes. Paper-free operation and automation with visible

³ For example, the graphics processors used to teach the early GPT-3 model of OpenAI, which developed ChatGPT, consumed 1,300 megawatt-hours of electricity, roughly the same as the monthly electricity consumption of 1,450 average American households. (Foy, 2023)

⁴ According to the International Energy Agency, by 2023, data centers and connected transmission systems were responsible for 1% of greenhouse gas emissions. Data center consumption matched the energy demand of countries like Germany and Sweden. Although running artificial intelligence accounted for 10-20% of total data center consumption in 2024, this could explode shortly. By 2026, demand for AI could increase this output to 10 times the 2023 level, while total data center energy demand could double. Researchers predict that data centres could consume more than 1 trillion gallons of fresh water to cool their data centres by 2027. (Cho, 2023) (Chow, 2024) (Forbes, 2024)

⁵ According to Microsoft's report, global water consumption increased by 34% from 2021 to 2022, which experts say could be due to the development of AI. (O'Brien & Fingerhut, 2023)

economic benefits masked the environmental burden of producing and maintaining IT solutions. Müller also often brought up another corporate example in his argument, which relates to the life cycle of IT assets. While regular hardware replacement (e.g., replacing corporate laptops every 3 years) can improve organizational performance and reduce maintenance costs, it increases business demands on consumption and negative externalities. It generates a lot of hard-to-manage electronic waste, partly a burden for the company.

The current development reinforces the contradiction with the corporate profile of cloud computing, which, on the one hand, significantly reduces the cost of users' local infrastructure (especially on the investment side). On the other hand, "outsourcing" the lifecycle cost of IT sustainability to cloud service providers involves oversized and highly environmentally damaging infrastructure being built and maintained for scalability. The introduction of data-driven IT systems and the artificial intelligence solutions that build on them typically lead to greater operational efficiency and, hence, cost savings on the client side while potentially creating a significant environmental burden on the service provider.

Müller also pointed to the risk that the global energy hunger of data centers has attracted regulators' attention. Since announcing the 2023 sustainability standard for data centers in Singapore, the European Union has also moved towards EU regulation of data center sustainability.

However, all of Müller's arguments were not accepted, and a conflict between the innovation and technology leaders developed along diverging interests. According to Stein, estimates of future environmental emissions are always uncertain⁶, and she was convinced that an increase in demand for computing capacity does not mean an equal increase in energy demand as technologies become more efficient over time. Moreover, since the application of both cloud technology and artificial intelligence could lead to significant efficiency improvements for the company's customers, which could even be measured in terms of reduced environmental impact, the economic and social impact of the developments was rather positive, even if she agreed that the negative environmental externalities of the developments would be felt at BlueCloud. She also argued that artificial intelligence models can help companies progress towards climate goals, as happened at Google in 2016 when they used DeepMind AI to reduce the cooling energy use of their data centers by 40% (Chow, 2024) (Foy, 2023). She was also confident that with demand continuing to grow and manufacturing capacity expanding more slowly, the later a company decides to invest, the more expensive it will be to build, which will hurt the return on investment and reduce the ability to achieve market benefits.

When Müller realized that the ESG risks had not reached the company's CEO, he bypassed his boss and approached Künstler directly with his dilemmas. Despite the circumstances, Künstler was very open to Müller's arguments and soon called a senior management meeting, to which he invited the sustainability project manager. However, he was asked to work with the Finance and legal managers to present the project's risks in detail to the managers. In parallel, he also

footprint exceeds that of the entire air transport sector. (Forbes, 2024) While before the rise of GMI, both Google and Microsoft pledged to eliminate or turn their carbon footprints negative by 2030, these pledges have been put at risk with the rise of AI. (Chow, 2024)

⁶ Following the launch of ChatGPT in 2022, tech giants with many data centers, such as Meta or Google, have become less and less transparent about the exact energy consumption of their AI models, while the sector's carbon

asked the head of innovation and technology to prepare a summary of the benefits of the investment again for this meeting, where they could then discuss scenarios for the investment together.

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Peformance measurement at DatIn

Delivering data and insights for actionable solutions

Ágnes Szukits

- What percentage of our employees do you think are motivated? was the question posed by the regional HR manager to the head of consumer measurement in the Budapest office.
- If you want to hear a number, let's say 90% was the answer from the head of consumer measurement.
- Actually, it is 30%. And now you can see who that 30% is by name. The remaining 70% of employees are stuck, and the new data-based performance appraisal system is there to improve their motivation.

Early January at DatIn's Budapest office, the regional and Hungarian HR managers, the Hungarian CEO and the area managers discussed the upcoming performance review and target setting period. It is now two years since the introduction of the new data-based performance appraisal system, gradually phasing out the hitherto essentially subjective performance appraisals. The system itself, its technological background, the process and performance categories, and the main targets have been defined centrally, leaving minimal room for local operation. The rationale for the introduction was given by senior management: "All conclusions and advice that we provide to our customers is based on data, and we encourage them to measure continuously for better performance; however, we have not followed this approach in our own operations".

DatIn was founded 23 years ago in the Netherlands, with the aim of providing market research and data analytics services to its clients to help them make informed decisions by understanding consumer behavior and market trends. Its name is a merger of two words "data" and "insights". The company has experienced dynamic growth and now has several subsidiaries in North America and Europe. European operations account for 80% of sales. DatIn focuses on three closely related service areas: consumer measurement, media measurement and consulting, similar to its main competitor Kantar. Its direct competitors include multinationals such as Nielsen, Ipsos and specialized companies such as Comscore (digital audience measurement) and IQVIA (healthcare).

The global market research industry, now worth around \$100 billion, has undergone a huge transformation over the last decade thanks to advances in technology. From the rise of streaming and digital media to changing viewing habits, data collection and analytics capabilities have evolved dramatically. Data collection and analysis based on measurements is often complemented by qualitative research. Psychologists and sociologists are involved to investigate the specific motivations and behavioral patterns of (local) consumers.

Machine learning and artificial intelligence solutions have brought huge performance improvements for DatIn in the measurement and analysis of data for clients. Of the three direct

client-facing teams (consumer measurement, media measurement and consultancy) at DatIn, it is the first two in particular that have been most supported and changed by technological advances. Team membership was determined by who did what most. However, during a client assignment, activities were closely intertwined in that consultant colleagues were somewhat skilled in data analytics and data analysts necessarily had a strong business and client knowledge.

The new performance appraisal system has been implemented as part of a global project, with employees working on client projects in all offices at the same time. In Hungary, this involved about 50 employees. Employees were classified into 9 categories based on a 3x3 matrix, where one dimension described seniority (junior, medior and senior) and another described the nature of the job. For these 9 categories, standard indicators were centrally assigned and mandatory; but these indicators could be supplemented by additional indicators by the local management. To a limited extent, the system was also flexible in setting slightly different targets for the same indicator for the same position. The financial year, which started in January, began with appraisal and target-setting meetings in a one-to-one meeting, lasting about one hour, between each employee and his or her line manager. Only a quick status report was produced quarterly for information purposes. Annual individual performance was assessed by the manager on a 4point scale based on a numerical assessment of the indicators (underachieved/ achieved/ exceeded/ outstanding). Only those who exceeded the majority of the target values and did not underperform in any of them could receive a 4, i.e., an outstanding rating. The performance rating determined the increase in the basic salary, whereas the annual bonus was based to a lesser extent on individual performance and to a greater extent on the financial performance of the Hungarian subsidiary.

The perception of the new system varied widely from team to team. According to the head of media measurement, who joined the company after the system was introduced, it was time to take advantage of the data that was already in front of them. "I was amazed at what used to go on here. How can you work in a way that at least annually, but I think quarterly, you don't get feedback on whether you're doing well, whether you're going in the right direction? Clear (i.e., quantifiable and measurable) targets help employees, and they also give a sense of security. It is also the way how I can ensure that we are achieving our organizational goals. If the numbers are wrong at the end of the year, EBIT is wrong, and no bonus will be paid. Of course, that's important for everyone."

The head of consumer measurement also says the new system has brought many positives. "We had numbers before, but we didn't have a breakdown of who had to produce what at an individual level. We measured and reported a lot to the Netherlands. But the assessment of individual performance was mostly determined by the subjective perception of the area managers. And let's admit it, we are human beings too, and here personal sympathy - how well I can work with someone - sometimes took that data-based performance appraisal away. That is now largely over. The senior colleagues are given personalized acquisition and turnover targets, and customer ratings are considered important for everyone, as is capacity utilization. Colleagues like to work with someone, and some are only ever put on a project when there is no one else left."

Initially, there was considerable resistance to the system among the consultants. Recording eight hours of working time per day for projects and other (internal) activities was felt to be both an administrative burden and unnecessary: "If I go to a client event, where do I record it?" However, everyone agreed that the new system created transparency and a level playing field¹. "Until now, we had colleagues who were ambitious, who took on a lot, but then of course they couldn't deliver everything. And they were sometimes judged worse because of that than someone who had made a target agreement with their manager to, say, come to work on time every day."

By the end of the second year, things took an interesting turn. Initially skeptical workers quickly got used to the new system and turned their attention to meeting their own targets. Eighty percent of employees met, and often exceeded, the targets set. However, area managers were full of complaints. "Already in the first year, we have seen that colleagues are meeting their targets, or at least trying hard to do so. But it was as if everything else had stopped. And yet not all contributions can be expressed in numbers. In the first year we gave colleagues 4 targets and corresponding metrics, and in the second year we gave them 6-10 targets, depending on their position. But the situation got worse. What we measure, they do; what we don't measure, we can't find the people to do. We have colleagues who carry the cases on their backs but underperform on the centrally set indicators. And there is the growing majority who care about nothing but numbers."

Annex

DatIn services

1. Consumer measurements:

- Retail measurement: data is collected from retail outlets to analyze sales trends, market share and consumer purchasing behavior.
- Consumer panels: consumer panels that provide detailed information on their buying habits, helping to understand market trends and consumer preferences.
- o Brand measurement and tracking: brand performance is tracked over time; and factors such as brand awareness, brand perception and brand loyalty are evaluated. A combined assessment of attitudinal data and behavioral data is used to infer what drives brand performance and how to sustain its growth.

2. Media measurement:

 Cross-media measurement: media consumption is measured across different platforms, including TV, radio, digital and social media. This helps clients understand how audiences use different media channels.

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¹ A level playing field is a concept about fairness, not that each person has an equal chance to succeed, but that they all play by the same set of rules resulting in formal equality of opportunity. (Wikipedia)

o Advertising effectiveness: the impact of advertising campaigns is assessed to see how ads perform in different media and how they influence consumer behavior.

3. Advice:

- o Benchmarking: assessing the effectiveness of marketing and/or sales organizations against best practice. In the case of brands, they show what strong brands have in common and what makes the real difference.
- o Implementation: tailored implementation of best practices



Core Competences at the heart of success - The Walt Disney Company ¹

Miklós Stocker, Zoltán Stokinger, Desislava Dostinova

It was a sunny Wednesday at the end of March, 2024 in Orlando when Bob Iger, CEO of The Walt Disney Company walked from the Bibbidi Bobbidi Boutique to the Seven Dwarves Mine Train in the Disney Magic Kingdom Theme Park. He was thinking about the success of the Experience segment of the company and was very satisfied with what he has seen in the daily operation of the customer packed theme park and wasn't surprised at all that this was his most profitable segment at the company.

His mind wandered off to next Wednesday's meeting when he will deliver his presentation about the results of the last financial year. Although the company was growing and the experience segment performed very well, he was worried about the performance of the entertainment segment as well as the new challenges from the competitors in the sports segment. Which resources and capabilities are the experience segment and the whole company based on? How could he strengthen these resources and capabilities in a way that the other segments could increase their performance to match the experience segment? Should he focus on increasing the efficiency of the entertainment segment in the short run or strengthen its core competences to (re)gain competitive advantage? How should he respond to the rumour that Warner Bros is in talks with AEW after Netflix announced its deal with WWE?

Then he was startled as a little boy in Captain America costume cried out "that is injustice" when his father refused to buy him another corndog. Bob thought that after all, Disney has an amazing industry, loyal customer base, financial success and a huge influence worldwide. The only question is how to go forward to even more success.

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¹ The case has been created from public sources for the sake of class discussion by the authors.

History

Disney Brothers Studio was founded in 1923 by the well-known Walt Disney and his brother Roy O. Disney, whose first creation was *Alice Comedies*, a combination of animated characters and live-action. Disney went all-toon with the series *Oswald the Lucky Rabbit* and produced 26 *Oswald* cartoons in 1927 alone. However, a turning point for the company was in 1928 when Walt Disney, unfortunately, lost the rights over *Oswald* as their distributor went behind their back. Due to this loss, Disney and its chief animator Ub Iwerks were pushed to create a new character with full legal protection, and *Mickey Mouse* was born. *Mickey* became an iconic character not only to the audience but also for the industry, by being the first ever synchronized-sound cartoon presented to the world. The innovation was so groundbreaking it immediately pushed Disney as a leader in the animation industry with many more years to come.¹

After the success of *Mickey Mouse*, Disney decided to aim higher, and in 1937, the company produced *Snow White and the Seven Dwarfs*, which was the first feature-length animated film in the world. The project was considered so ambitious for its time most critics called it "Disney's Folly". Nonetheless, the movie did not only become the highest-grossing film of the time, but it also demonstrated animation's potential as a serious cinematic medium. This huge success offered Disney the opportunity for shooting other classics like *Dumbo*, *Bambi*, and *Pinocchio*.^{2,3}

The first Disneyland opened in 1955 in Anaheim, California, revolutionizing the entertainment industry with the first-ever theme park designed as a complete, immersive experience. This allowed the audience to further indulge in the fantasy world Disney had carefully crafted, leaving such a great impression on them that it set fully new standards for theme parks all over the world. The television channels reporting the event estimated that 90 million American viewers stayed in front of their TVs to capture the opening of the "Happiest Place on Earth". At that time, the population of the USA was around 166 million, meaning more than half of the country was anticipating the grand opening of Disneyland.⁴

In 1983, Disney extended its reach to the television industry by bringing forth the Disney Channel as a cable network targeting children and their families. It aired movies, cartoons, and family-friendly shows round the clock. Early programs on the channel also included *The Adventures of Ozzie and Harriet*; *The Mickey Mouse Club*; and other educational programs that would host full service in association with Disney's mission for wholesome entertainment. Gradually, Disney Channel became popular and shifted its profile from super or premium cable to normal cable channel in the late 1990s, hence it reached more substantial markets after the

¹ https://insidethemagic.net/2023/05/the-history-developments-and-major-milestones-of-the-walt-disney-company-lh1/

² https://insidethemagic.net/2023/05/the-history-developments-and-major-milestones-of-the-walt-disney-company-lh1/

³ https://disneyandorlandogeeks.com/disneys-milestones

⁴ https://mickeyblog.com/2021/08/09/most-important-dates-in-disney-history/

most iconic productions via TV, such as *High School Musical*, *Hannah Montana*, and even more. ^{5,6}

The acquisition of Pixar in 2006, Marvel in 2009, and Lucasfilm in 2012 marked an even greater leap forward in ecosystem development for Disney. Clearly, Pixar introduced new, innovative animation technology with narration and made the original animation techniques of Disney alive with *Toy Story*. Meanwhile, the Marvel Cinematic Universe was launched with *Iron Man* to send its genre through the roof as a global phenomenon. And the *Star Wars* saga from Lucasfilm continued a legacy begun in the 1970s to bring Disney into a new era of science fiction and fantasy storytelling.⁷

Disney started its streaming service, Disney+ in 2019. This gave the company control over the distribution of its massive libraries, including Pixar, Marvel, and Star Wars, right into the hands of viewers globally. The success of Disney+ has not only brought it new revenue streams but given Disney the ability to create exclusive shows like *The Mandalorian*, expanding its capabilities in storytelling and reaching out to new generations. It proved to the audience that Disney is capable of innovation and adapting to the digital age while maintaining its capability of providing trendy and engaging content.

Disney has created a unique ecosystem that combines theme parks, resorts, streaming services and merchandise. Their ability to craft compelling, emotionally engaging stories is unmatched; thanks to this, people can break out from reality and explore other worlds. Disney has been a first-mover in several areas, like feature-length animation films and immersive theme parks; step by step the company established itself as a leader in innovation, shaping the experience and entertainment industries. Although there is a threshold in disposable time and income, Disney caters to all age groups and genders, reflected in the wide range of movies, TV content, merchandise and experiences thus maximizing market reach and fostering long-term brand loyalty. Along the way Disney created the largest portfolio of entertainment IPs in the world, but entertainment IPs tend to have inefficiencies.

⁵ https://insidethemagic.net/2023/05/the-history-developments-and-major-milestones-of-the-walt-disney-company-lh1/

⁶ https://disneyandorlandogeeks.com/disneys-milestones

⁷ https://disneyandorlandogeeks.com/disneys-milestones



Competitors

Companies which create interconnected ecosystems usually face different types of competition from players positioned differently or competing only in smaller areas of the cleverly assembled ecosystem. Disney faces several competitors, some even with very similar strategies.

Warner Bros. Discovery

One of the giants in the industry, Warner Bros. Discovery, first entered the market on the 4th of April 1923 and has kept its strong presence ever since. The company is best known for its unforgettable creations, such as the *Harry Potter* series, which, as of this moment, has managed to collect a total of 1.3 billion views from all over the world. Another segment Warner Brothers has developed is the DC Universe containing some of the most memorable and iconic characters out there including *Superman*, *Batman*, and *Wonder Woman*. Warner Bros. Discovery's impact on the entertainment industry extends beyond films and television; it also plays a significant role in the development of streaming platforms. HBO Max launched in 2020 and has since been rebranded as Max. Thus the company has been able to capture the interests of a great proportion of comic and fantasy fans from around the globe. Additionally, Warner Bros. Television Group produces a significant amount of popular television content further solidifying its presence in the sphere of entertainment. By its constant effort in diversifying its portfolio, expanding product variety and investing into new original programming, Warner Brothers has continued to gain market share in this diverse and dynamic industry.

 $^{^{8}\ \}underline{https://variety.com/2020/digital/news/hbo-max-launch-date-price-streaming-1234585776/}$

⁹ https://thebrandhopper.com/2024/07/10/exploring-disney-top-competitors-and-alternatives/

Sony Pictures

Sony Pictures, a company created in 1987, may not be fully familiar to the audience by its name, however its productions are globally praised and loved by billions of people. Sony Pictures is the creator of some of the biggest blockbusters known to the cinematic industry such as, Spider Man, Jumanji and Men in Black. Yet, Sony didn't feel fully satisfied, and it needed to prove its capabilities even more; therefore, the company started experimenting and substantially succeeded in the animation segment. Moreover, Sony Animation Picture has proved its competency by further solidifying its presence with the releases of Hotel Transylvania and Spider Man: Into the Spider Verse. After all that has been seen from Sony Pictures' work and production, it was truly believed that it was time for the company to settle down on innovations; nonetheless, the company proved the market wrong. It took an unexpected turn by choosing to cross integrate itself through Play Station, creating a surprising synergy between the two divisions, opening doors for cross-promotions and developing an ecosystem enhancing all different kinds of entertainment. 10 Additionally, Sony Pictures has embraced the potential of virtual reality (VR) and augmented reality (AR) for enhancing the viewing experience, exploring new ways to engage audiences. These forward-thinking strategies position the company as a leader in blending traditional filmmaking with the latest technology. By this action Sony proved to be a major participant in the entertainment industry and one that shall not be underestimated. 11

Netflix

Netflix is a company name that almost everyone owning a connected electronic device is familiar with, either because they are active consumers or just because of its strong presence on the market. Netflix has created the most significant presence in the streaming industry as of now, leveraging on first-mover advantage in direct rivalry with Disney+. The global streaming service, first introduced in 1997, has mainly based its product portfolio on films, series, documentaries and original content that's focused on grabbing the attention of the international audience. The brand is responsible for the production of some of the most streamed series of the last decade, such as *Stranger Things*, *The Crown* and some award-winning movies like *Roma* and *The Irishman*. Something Netflix has become particularly skilled at is creating diversified content that manages to generate discussion groups and a community around it, through its provocative lines and unexpected plot twists. This has put the pressure on Disney+ to further integrate its products, leading the brand away from its main core.

Another core competency that Netflix possesses is the introduction of international movies and series, which hasn't been a very popular practice for an American business until recently. Some of the most famous productions being *Money Heist* (Spanish) or *Dark* (German), but there are many more. Through this practice Netflix has developed products that are racially and culturally

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¹⁰ https://www.sony.com/en/SonyInfo/technology/stories/entries/spe baggelaar/

¹¹ https://thebrandhopper.com/2024/07/10/exploring-disney-top-competitors-and-alternatives/

diverse, attracting yet another target audience to increase customer numbers across 190 countries and putting even more pressure on Disney+ or Max.¹²

Paramount Global

Paramount is a major competitor of Disney, stretching across multiple platforms and forms of media. In the terms of the movie industry, Paramount Pictures created the following franchises: *Transformers, Mission Impossible* and *Star Trek*. Paramount's presence can also be seen when browsing TV channels: CBS, Showtime, MTV, Nickelodeon are all channels that millions of people tune into every day to watch and enjoy. In particular, Nickelodeon, with its cartoons, especially SpongeBob, has held a strong grip on this type of entertainment. The streaming service of Paramount called Paramount+ is remarkably similar to Disney+ in terms of naming, and this isn't a coincidence as it's a direct competition to Disney's platform. Paramount+'s variety in terms of content can create some serious leverage when attracting customers. To this day, Paramount is making great investments into maintaining the relevance of its streaming service's content in order to attract more and retain old consumers. Paramount Global's growth and presence in the entertainment industry shouldn't be underestimated, as they have built a well-known and maintained platform for their content across multiple forms of media. Paramount also tried its luck with entertainment theme parks, although with only moderate success as they sold Paramount Parks to Cedar Fair in 2006 after 13 years of operation.¹³

Universal Studio

Universal Studio Florida was first founded in 1912, mainly producing short movies with less engagement for the audience, however, a few years later in the 1930s it produced some of the most memorable horror films *Dracula*, *Frankenstein* and other iconic projects like *Jurassic Park* and *Jaws*. The company also tested its skills in animation and had a substantial success with movies like *Minions* and *Sing*. ¹⁴ Apart from that, Universal Studios penetrated the movie and television industry with one of the most famous and well-known movie studios located in Hollywood, Universal Pictures. In 2011, Comcast acquired NBCUniversal, bringing new investment and focus to Universal's theme parks, film studios, and TV networks. NBCUniversal also owns major TV networks: NBC, USA Network, Syfy, and Bravo, including a streaming service through Peacock. ¹⁵ Furthermore, Universal Studios took a step towards the theme park and entertainment market. The company wanted to create an immersive experience for its consumers, therefore opening its first theme park in 1964, which revolved around the idea of people getting a better view at how a movie is being produced from behind the scenes. This expanded into fully realized theme parks when Universal Orlando Resort opened in 1990, offering to the public some of the most enticing places up to this date, like The Wizarding World

12 https://thebrandhopper.com/2024/07/10/exploring-disney-top-competitors-and-alternatives/

¹³ https://www.lexpert.ca/big-deals/cedar-fair-acquires-paramount-parks/346042#:~:text=On%20June%2030%2C%202006%2C%20Cedar,Corporation%20for%20US%241.24%20billion

¹⁴ https://allears.net/2023/08/29/universal-studios-orlando-vs-disneys-hollywood-studios-complete-guide/

¹⁵ https://orlandoinformer.com/universal/universal-studios-florida/

of Harry Potter, Minion Land and many more. Throughout all these years Universal Studios has managed to integrate itself into the cinematic, streaming and theme park industry. ¹⁶

Segments of operation

Walt Disney Company had five divisions up until 2015, which were Media Networks, Parks and Resorts, Studio Entertainment, Consumer Products and Interactive. ¹⁷ From June 4th, 2015 the Consumer Product and Interactive segments merged, and the company started operating with four business units. ¹⁸

In October 2020, the company announced a strategic reorganization of the media and entertainment businesses to accelerate the growth of the company's direct-to-consumer (DTC) strategy. As a result, the company was organized into two divisions in 2021, the Disney Media and Entertainment Distribution (DMED) and Disney Parks, Experiences and Products (DPEP).

From 2023, as the importance of sport continually increased in entertainment, the company was restructured again. Three strategic business units were formed: the entertainment, the experiences and the sports divisions.²⁰

The Entertainment Division encompasses the Company's non-sports focused global film, television and direct-to-consumer (DTC) video streaming content production and distribution activities. This includes domestic and international Linear networks, like ABC, Disney, Fox, National Geographic, A+E, etc; direct-to-consumer, like Disney+ and Hulu; and content sales and licensing, like video-on-demand, theatrical distribution, DVDs and magazines, music distribution, etc. In Appendix 4 the share of entertainment screen time activities can be seen whereas in appendix 5 shows the age-based segmentation of Disney+ viewers.

Disney has 71 million domestic subscribers in the United States, and, with operating 285 general entertainment and family channels outside the U.S. in approximately 40 languages and 190 countries and territories, it has an approximated 270 million unique subscribers in general entertainment and 225 million unique subscribers in the family segments as of 2023.

In September 2023, Disney+ has an approximated 113 million Core and 38 million Hotstar subscribers with Hulu adding approximately 49 million subscribers as well.

The Sport Division encompasses the Company's sports-focused global television and DTC video streaming content production and distribution activities. This includes international and domestic ESPN and Star. The number of domestic ESPN subscribers are approximated as 71 million, with international ESPN adding an additional 59 million, and Star adding approximately 82 million subscribers. In Appendix 6. the most preferred platform types to watch live sports in the United States can be seen.

¹⁶ https://www.thestreet.com/travel/universal-studios-disney-theme-parks-face-a-major-new-rival

¹⁷ Disney Annual Report 2014 https://thewaltdisneycompany.com/app/uploads/2015/10/2014-Annual-Report.pdf

¹⁸ Disney Annual Report 2015 https://thewaltdisneycompany.com/app/uploads/2015-Annual-Report.pdf

Disney Annual Report 2020 https://thewaltdisneycompany.com/app/uploads/2021/01/2020-Annual-Report.pdf
 Disney Annual Report 2023 https://thewaltdisneycompany.com/app/uploads/2024/02/2023-Annual-Report.pdf

The Experiences Division encompasses domestic theme parks and resorts & experiences like the Disney Cruise Line or Disney Vacation Club, international theme parks and resorts and consumer products, like branded merchandise and licensed trade names. In Appendix 7. the annual attendance of the most visited Theme Parks worldwide can be seen.

Financial performance

Disney's revenue has grown steadily in the past decade, from \$40,893 million to \$88,898 million with a steady profitability, except for the COVID struck year, 2020 (See Appendix 1. for more details). In 2023 the company increased their product- and service-related revenues as well, increasing with 7.47% in total. Although operating income also increased (6.12%), net income dipped due to the significant restructuring and impairment charges. (See Appendix 2. for more details)

Disney's revenues are predominantly coming from their extended domestic market (Americas), whereas Europe and Asia Pacific contribute only 20% to the company's revenues (see Figure 1).

9 533 8 160

• Americas

• Europe

• Asia Pacific

Figure 1. Geographical distribution of revenues in 2023 (million \$)

Source: Disney Annual Report 2024

In 2024, Disney increased the retail prices of International Disney+, which resulted in an increase in average monthly revenue per paid subscriber from \$6.66 to \$6.78.²¹

As of September 30th, 2023 Disney operates with a steady ratio of liabilities and equity of around 1:1. Retained earnings from its successful history takes more than 44% of the equity, whereas current liabilities are around 30% of total liabilities. Disney's cash reserves increased by \$2.5 million from 2022, but current assets still do not exceed 16% of the total asset portfolio. (See Appendix 3. for more details).

²¹ Third Quarter and Nine months earnings for fiscal 2024 https://thewaltdisneycompany.com/app/uploads/2024/08/q3-fy24-earnings.pdf

Although Disney's financial results are good, they are lagging far behind its financial performance from the last decade. In the new decade, serious disruptions happened in the global economy, business models changed and the competition intensified for the attention of customers.

Success and Challenges

Iger thought one of the main reasons Disney has achieved such remarkable results in the entertainment industry can be linked to its strongly developed business strategy. The company did not stay simple by just creating animated pictures for the screen; it aimed to immerse its audience into new worlds which their minds could have never even imagined and develop a culture surrounded by childhood dreams, memories, and so much more. And the more fictional characters meant to the customer the more offerings Disney created for them.

The company established an ecosystem from characters, films and series, theme parks and holiday resorts, streaming services and sports broadcasts all to bring a full experience to its audience. People have the ability to touch, talk, and even become some of their favorite characters, seeing worlds they had never seen before, creating a community, and being part of something so much bigger. However, something Disney had to understand was that the higher you aim, the harder you have to fight. The more its ecosystem grew, the more competition it gained and the more difficult it became for Disney to keep up with its vision.

His thoughts turned back to the sports division. In sports, Disney moved ahead of Netflix and Warner, but now the two companies seem to be shifting to sports entertainment. Should Disney turn to sports entertainment as well? How could they leverage the sports division to be able to unleash more revenue-related synergies? What do the different target customers value, and which potential synergies would be good for which target segment?

Annexes

Annex 1: Income statement 2012-2023

million \$	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Revenues of Services	79 562	74 200	61 768	59 265	60 579	50 869	46 843	47 130	43 894	40 246	37 280	34 625
Revenues of Products	9 336	8 522	5 650	6 123	9 028	8 565	8 294	8 502	8 571	8 567	7 761	7 653
Total Revenues	88 898	82 722	67 418	65 388	69 607	59 434	55 137	55 632	52 465	48 813	45 041	42 278
Cost of services	53 139	48 962	41 129	39 406	36 493	27 528	25 320	24 653	23 191	21 356	20 090	18 625
Cost of products	6 062	5 439	4 002	4 474	5 568	5 198	4 986	5 340	5 173	5 064	4 944	4 843
Selling, general,												
administrative and other	15 336	16 388	13 517	12 369	11 549	8 860	8 176	8 754	8 523	8 565	8 365	7 960
Depreciation and												
amortization	5 369	5 163	5 111	5 345	4 167	3 011	2 782	2 527	2 354	2 288	2 192	1 987
Total Costs and expenses	79 906	75 952	63 759	61 594	57 777	44 597	41 264	41 274	39 241	37 273	35 591	33 415
Restructuring and												
impairment charges	3 892	237	654	5 735	1 183	33	98	156	53	140	214	100
Other income/expense, net	96	-667	201	1 038	4 357	601	78	0	0	-31	-69	239
Interest income/expense,												
net	-1 209	-1 397	-1 406	-1 491	-978	-574	-385	-260	-117	23	-235	-369
Equity in the income of												
investees	782	816	761	651	-103	-102	320	926	814	854	688	627
Income before income												
taxes	4 769	5 285	2 561	-1 743	13 923	14 729	13 788	14 868	13 868	12 246	9 620	9 260
Income taxes	1 379	1 732	25	699	3 026	1 663	4 422	5 078	5 016	4 242	2 984	3 087
Net income	3 390	3 553	2 536	-2 442	10 897	13 066	9 366	9 790	8 852	8 004	6 636	6 173

Source: Annual Reports from 2012-2024

Annex 2: Selected items of the income statement and its divisional distribution in 2022 & 2023

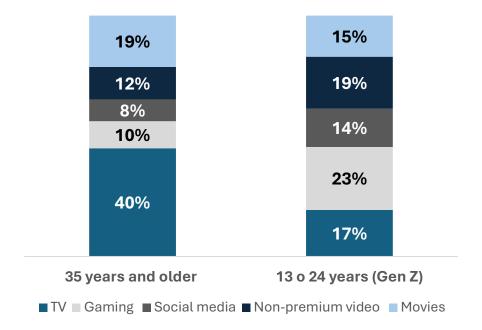
2023 (in \$ millions)	The Walt Disney Company	Entertainment	Sports	Experiences	Eliminations
Revenues	88 898	40 635	17 111	32 549	-1 397
Operating income	12 863	1 444	2 465	8 954	
Content License Early Termination	0				
Corporate and unallocated shared expenses	1 147				
Restructuring and impairment charges	3 836				
Other income (expense) net	96				
Interest expense, net	1 209				
TFCF and Hulu acquisition amortization	1 998				
Income from continuing operations before tax	4 769				
Income tax	1 379				
Net income	3 390				
2022	The Walt Disney Company	Entertainment	Sports	Experiences	Eliminations
Revenues (in \$ millions)	82 722	39 569	17 270	28 085	-2 202
Operating income	12 121	2 126	2 710	7 285	
Content License Early Termination	1 023				
Corporate and unallocated shared expenses	1 159				
Corporate and unallocated shared expenses Restructuring and impairment charges					
	1 159				
Restructuring and impairment charges	1 159 237				
Restructuring and impairment charges Other income (expense) net	1 159 237 -667				
Restructuring and impairment charges Other income (expense) net Interest expense, net	1 159 237 -667 1 397				
Restructuring and impairment charges Other income (expense) net Interest expense, net TFCF and Hulu acquisition amortization	1 159 237 -667 1 397 2 353				

Annex 3: Balance Sheet

Balance Sheet (in \$ millions)	30.09.2023	01.10.2022
Assets		
Current Assets	32 763	29 098
Cash and cash equivalents	14 182	11 615
Reveivables, net	12 330	12 652
Inventories	1 963	1 742
Content advances	3 002	1 890
Other Current Assets	1 286	1 199
Produced and licenced content costs	33 591	35 777
Investments	3 080	3 218
Parks, resorts and other property	34 941	33 596
Attractions, buildings and equipments	70 090	66 998
Accumulated depreciation	-42 610	-39 356
Projects in progress	6 285	4 814
Land	1 176	1 140
Intangible assets, net	13 061	14 837
Goodwill	77 067	77 897
Other assets	11 076	9 208
Total Assets	205 579	203 631
Liabilities and Equity		
Current liabilities	31 139	29 073
Accounts payable and other accrued		
liabilities	20 671	20 213
Current portion of borrowings	4 330	3 070
Deferred revenue and other	6 138	5 790
Borrowings	42 101	45 299
Deferred income taxes	7 258	8 363
Other long-term liabilities	12 069	12 518
Redeemable noncontrolling interests	9 055	9 499
Equity	103 957	98 879
Common stock, \$0.01 par value	57 383	56 398
Retained earnings	46 093	43 636
Accumulated other comprehensive loss	-3 292	-4 119
Treasury stock, at cost, 19 million shares	-907	-907
Total Disney Shareholders' equity	99 277	95 008
Noncontrolling interests	4 680	3 871
Total liabilities and equity	205 579	203 631

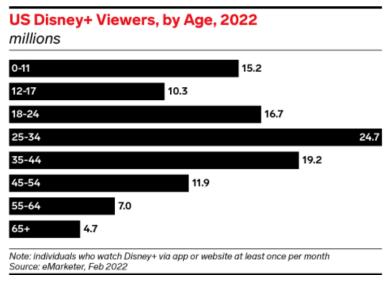
Source: Disney Annual Report 2024

Annex 4: Share of entertainment screen time activities in the US in 2023 by age



Source: Statista¹

Annex 5: Disney+ viewers as per age



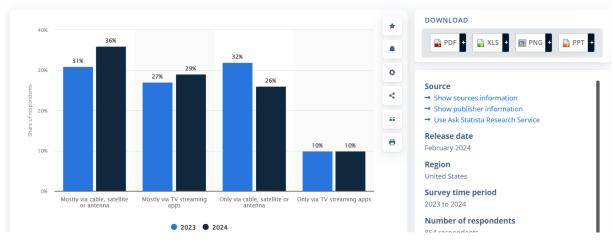
source: eMarketer2

 $[\]frac{1 \text{ https://www.statista.com/statistics/1281974/us-users-time-spent-on-selected-media-activities-age/\#:~:text=Share% 20 of % 20 entertainment % 20 screen % 20 time% 20 activities% 20 in % 20 the % 20 U.S% 20 20 23 % 2 C% 20 by % 20 age & text=According % 20 to % 20 a% 20 survey % 20 of, the % 20 age % 20 of % 20 35 % 20 years.}$

https://www.emarketer.com/content/disney-viewers-under-25-years-old

Annex 6: Most preferred platform type to watch live sports in the United States from 2023 to 2024

Most preferred platform type to watch live sports in the United States from 2023 to 2024



source: Statista³

³ https://www.statista.com/statistics/1418873/preferred-platform-watch-live-sports-us/

Annex 7: Annual attendance of the most visited Theme Parks worldwide

Name of the Theme Park, Built Year	Location	Company	Attendance
Walt Disney World, Magic Kingdom, 1971	USA	Disney	17,133,000
Disneyland,1955	USA	Disney	16,881,000
Universal Studios, 2001	Japan	Universal Studios	12,350,000
Tokyo Disneyland,1983	Japan	Disney	12,000,000
Universal Studios Islands of Adventure, 1999	USA	Universal Studios	11,025,000
Walt Disney World, Disney's Hollywood Studios, 1989	USA	Disney	10,900,000
Universal Studios, Florida,1990	USA	Universal Studios	10,750,000
Tokyo DisneySea, 2001	Japan	Disney	10,100,000
EPCOT at Walt Disney World, 1982	USA	Disney	10,000,000
Disneyland Paris – Disneyland Park, 1992	France	Disney	9,930,000

source: own elaboration from theparkdb.com



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Ewiser Forecast

A Hungarian startup navigating turbulent markets amidst global transition

Erik Aal

A lucky failure

In 2017, four young graduates from the Technical University of Budapest won an award in a competition hosted by MVM, the largest organization in the Hungarian energy market, with their contribution on planning and forecasting of household solar power plants. Shortly earlier, the four engineers, Dániel Zóka, Bálint Olaszi, Máté Galambosi, and Károly Horváth-Dóri, had founded their company, Ewiser Forecast.

They targeted the market for household solar installations. The software they had developed rendered a basic design for roof installations and calculated an estimated annual production. While being versatile in technology, the young engineers were less so in marketing of private consumers. Their product did not take a high flight. In hindsight, it turned out to be a lucky failure. Although immediate success was not forthcoming, Bálint and his partners were convinced about the potential of their product and the need for an application that is able to forecast the production of solar power installations. Soon, they were able to leap on a huge opportunity, through which they would ultimately become a significant entity in the Hungarian renewable energy sector and an innovative force.

Seizing the opportunity – the renewable energy feed-in regime

In the summer of 2016, something quite remarkable happened in the renewable energy environment of Hungary. The announcement that the existing feed-in tariff regime, the so-called KÁT scheme, was to be replaced by the more market-oriented METÁR scheme as of January 1st, 2017, triggered a tsunami of KÁT-license applications during the remainder of 2016. In order to fully understand the importance of this development, the basics of the KÁT and METÁR schemes are concisely explained hereunder.

The KÁT and METÁR schemes

Feed-in schemes are in principle a contractual relationship between a (renewable) electricity producer and a state agency, which stipulates that the agency will take off the produced quantity against a contractual price. Usually, these schemes have a specific duration and/or a maximum total take-off quantity. Hungary's feed-in tariff (FIT) regimes, KÁT and METÁR, are key elements of the country's renewable energy policy framework. They aim to promote renewable energy generation by providing predictable, long-term financial incentives to producers. The KÁT (Kötelező Átvételi Tarifa or Mandatory Off-Take Scheme) was Hungary's original feedin tariff scheme, established in the early 2000s in order to promote renewable energy production by guaranteeing producers a fixed price per kilowatt-hour (kWh) for their electricity, irrespective of market prices. The scheme was closed to new entrants in 2017, transitioning to the more market-oriented METÁR system, which was a requirement by EU legislation. Thus, any project based on a license obtained before January 1st, 2017, would be classified as a KAT-producer Because the deadline for achieving grid connection was eventually three years from the date of issuing of the license, many of these obtained licenses were not connected to a concrete, viable project but were economically valuable as a feed-in license and became subject of intensive trade.

METÁR (Megújuló Támogatási Rendszer or Renewable Energy Support Scheme) replaced KÁT in 2017 as a more modern and flexible support mechanism. Its primary goal is to align Hungary's renewable energy policy with EU directives and integrate renewables more effectively into the energy market. It had two streams. First, auction-based tariffs. Here, producers bid for support in competitive auctions, ensuring cost efficiency and reducing the burden on consumers. Second, smaller projects still benefit from simplified support schemes without competitive bidding. They receive so-called Premium Support, which is a green premium provided above the market price, determined through auctions. This premium ensures that producers receive adequate compensation while still being exposed to market dynamics.

The table below shows the growth of the KÁT/METÁR schemes.

Table 1: Number of solar power plants and their total installed capacity in KÁT and METÁR

		KÁT-regime		METÁR-	regime	TOTAL	
		number	MW	number	MW	number	MW
	>= 0,5 MW	92	1,575	321	226	413	1,801
2024	< 0,5 MW	2,610	1,268	0	0	2,610	1,268
	Total	2,702	2,843	321	226	3,023	3,069
2023	>= 0,5 MW	91	1,526	227	164	318	1,690
	< 0,5 MW	2,265	1,101	0	0	2,265	1,101
	Total	2,356	2,627	227	164	2,583	2,791
	>= 0,5 MW	73	843	72	60	145	904
2022	< 0,5 MW	2,080	1,010	0	0	2,080	1,010
	Total	2,153	1,853	72	60	2,225	1,914

		KÁT-ro	egime	METÁR-	regime	TOTAL		
		number	MW	number	MW	number	MW	
2021	>= 0,5 MW	64	505	84	69	148	574	
	< 0,5 MW	2,576	1,250	0	0	2,576	1,250	
	Total	2,640	1,755	84	69	2,724	1,824	
	>= 0,5 MW	54	296	72	59	126	355	
2020	< 0,5 MW	2,241	1,087	0	0	2,241	1,087	
	Total	2,295	1,383	72	59	2,367	1,442	
	>= 0,5 MW	41	241	5	4	46	245	
2019	< 0,5 MW	1,478	717	0	0	1,478	717	
	Total	1,519	958	5	4	1,524	962	
	>= 0,5 MW	11	49			11	49	
2018	< 0,5 MW	693	332			693	332	
	Total	704	381			704	381	
	>= 0,5 MW	0	0			0	0	
2017	< 0,5 MW	135	61			135	61	
	Total	135	61			135	61	

Source: MAVIR

The KÁT-regime was initially designed for power plants with a capacity of up to 0,5 MW. However, due to regulatory gaps exploited by project developers, power plants with much larger capacities were also able to operate in the scheme. Although KÁT/METÁR intended to encourage investments in renewable energy projects such as biomass, wind, solar, and geothermal energy, solar projects account for over 90% of total installed capacity operating in the two regimes.

In 2016 emerged this sudden contagious appetite to engage in production of solar power. The relevant authority approved over 2000 applications for KÁT licenses, virtually all of them solar power projects. The bulk of the applications were by private persons and legal entities with absolutely no background or knowledge of solar power projects. They were simply attracted by the opportunity to make a low-risk investment with an internal return rate of 12-14%. A typical 0,5 MW power plant would come with a development cost of 500 TEURO, and since these projects were highly bankable, the amount of equity needed was not an obstacle.

Whilst designing and construction of these solar powers was relatively straightforward, and there was no shortage of companies that offered these services, there was one field that required specialized knowledge, which was yet to be developed to its full extent, and this was exactly the expertise of Ewiser: forecasting of solar power production. Since the KÁT/METÁR producers are producing to the national grid, the Transmission System Operator (TSO) requires them to provide data regarding their expected production. Each month, they are obliged to forecast their production for the next 12 months, and, more importantly, they must provide a daily production schedule for each day of the month.

Bálint and his partners immediately recognized the potential of the software they had already developed and modified it into an application that perfectly fitted the job of making the daily and monthly planning for the solar power plants in the feed-in regime. The team shifted into the highest gear to have the smartest and most advanced application on the market.

Marketing still probably wasn't the strongest point of the young Ewiser firm, but now the task was somewhat easier: the target group of customers was known, and their names and contact details were part of the public domain. Ewiser decided not to sell their application, but instead fully take over the planning obligations, including all other mandatory periodic provision of information to the relevant authorities. This complete package of information services coincided with the interests of the fresh solar power plant owners, who were not interested in getting engaged in the nitty-gritty of operating solar power plants and, by becoming a client of Ewiser, were relieved of all worries. With a targeted marketing and sales campaign, within a time span of one year, Ewiser gained several hundred power plants as customers and established itself as one of the leading firms in this market segment.

The changing landscape of forecasting production

The daily planning schedules for the next day are essential information for the TSO, to make advance estimates on how demand and supply of electricity on the grid will develop. In the beginning, when solar power plants were a negligible factor in the demand-supply balance, the accuracy requirement for their daily schedules was low, nor were there any penalties connected to misplanning. When Ewiser entered the market in 2018, this was already changing. By 2019, the daily planning was to be set up in hourly intervals. There was a penalty for deviations greater than 10% and a bonus for staying within the +/- 10-% band. Thus, the TSO incentivized producers to be serious about their daily planning. Ewiser acted on this by promising customers significant bonus income. Ewiser felt confident about this as they had advanced their algorithms further in the meantime. In the market, Ewiser was also seen as an innovative firm with sophisticated forecasting techniques, so the bonus prospect delivered a substantial number of new customers. The incentive for Ewiser was that half of the bonuses earned were to be paid out to the customers, while it would retain the other half. For Ewiser, 2019 was in relative terms its most successful year with a net profit rate of almost 30% of turnover. Of course, this bonus system was too good to last long, and over the next years the consequences of misplanning got increasingly tough. The demand for higher accuracy of forecasting increased further.

There were two underlying reasons for this trend. The first was a matter of regulations. From an EU legislation perspective, it was not compliant to make a caveat for producers in the feedin scheme with regard to the consequences of misplanning in comparison to market players. In other words, Hungary had to harmonize the conditions in the feed-in regime to those that were already applicable to market entities. The other factor was the increasing share of renewable energy sources (RES) in electricity generation. The contribution of solar energy to Hungary's electricity generation had reached 7.0% in 2020 and increased further to 18.4% in 2023. The graph below shows the development of total solar power capacity, i.e., the total of household installations and industrial power plants.

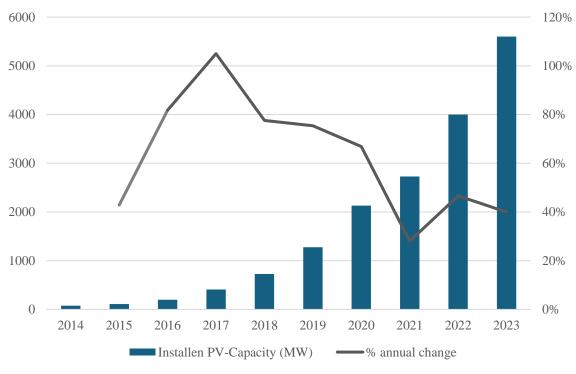


Figure 1. Development of PV capacity in Hungary

Source: MEKH

By its nature, solar power generation has an element of unpredictability, and, there is no generation on demand. Both factors place an increasing strain on the grid stability and force the TSOs to increase their arsenal of means of regulating grid balance.

From 2020 onwards, the misplanning penalty was increasingly based on the actual balancing costs the TSO incurred. Balancing costs refer to the expenses associated with maintaining the real-time equilibrium between electricity supply and demand to ensure grid stability and prevent outages. These costs arise due to the variability and unpredictability of both electricity consumption and generation, particularly with high shares of RES (see for more detail the section on grid management below).

The penalty system now worked in such a way that while there was still a bonus for planning accuracy, the balancing costs connected with the misplanning were subtracted. The resulting net cost was then compensated up to a certain limit by the TSO, but this limit was halved over a period of two years. Ewiser contracted their monthly fees in such a way that they safeguarded the customers against any penalties by fully taking over this risk. Ewiser was one of the few forecasting companies to assume this risk, but it was confident to do this because of its advanced forecasting program. They had also installed inverter monitoring at all of their clients' sites, this enabled Ewiser to adapt the planning during the day (the so-called Intraday forecast) und thus avoid or mitigate misplanning penalties. When Ewiser did the math, it came out that it could still absorb the penalties in excess of the compensation into the fixed amount it charged to its customers.

This worked well until spring 2021. Then, there was suddenly an acute crisis. The subsidy stayed, but the market changed, and the balancing costs went up two, three or even four times, and Ewiser received bills from the TSO for balancing energy costs that three or four monthly fees wouldn't cover. As one of the Ewiser managers put it, "I remember, those two months in '21, when the cap was taken off the balancing energies, in March and April every day we came in, we were like, this might be the last one." Ewiser had to take a drastic step by terminating all contracts, while at the same time offering new contractual terms that justified the continuity of the firm. Ewiser went at length to communicate the reasons behind this measure to its clients, every client was contacted by phone and in emails detailed explanations were given. Also, Ewiser built in some fairness clauses into the new contract, which would result in discounts to the customer if balancing energy costs could be contained. Eventually, only a few customers did not accept the new contract and switched to another service provider. Several factors can explain this. First of all, Ewiser had differentiated itself on the market as an agile, innovative provider that continuously developed the quality of its services; this was particularly important because it was clear that the new market conditions were not only a problem for Ewiser but for all forecasting companies in the sector. Second, switching to another provider would involve switching costs, and customers would not want to go through the administrative hassle of changing providers. Thus, combined with open communication, customers realized they would not be better off by not signing the revised contract.

The unfolding of the changed market conditions worked to Ewiser's advantage. In early 2021, there were around 15 companies in the sector that provided forecasting and scheduling services to solar power producers. In face of the steep increase in the balancing costs, forecasters that had less sophisticated forecasting programs were simply not viable anymore in this environment. A shake-out process started, which had reduced the number of competitors to four two years later.

The competitors of Ewiser Forecast

ALTEO Nyrt.

ALTEO is an energy service and trading company, operating a renewable energy portfolio, with a significant focus on solar power generation. It owns and operates several solar power plants across Hungary and is currently building what will be its largest solar power plant, with a nominal capacity of 20 MW. ALTEO operates a virtual power plant (VPP) with an installed electrical capacity of nearly 100 MW, integrating various energy sources, including renewables. This system enhances grid stability and optimizes energy distribution. ALTEO provides comprehensive planning and forecasting services for its power plants as well as external clients. Through a subsidiary, branded as ALTENERGY, the company supplies energy to Hungarian SMEs and large enterprises. In recent years, ALTEO has invested in high-capacity energy storage facilities. These storage systems play a crucial role in balancing supply and demand, enhancing the reliability of renewable energy sources. Total annual revenue of ALTEO amounts to approx. 80 bln HUF.

Energiabörze Kft

Energiabörze Kft specializes in energy aggregation, system regulation, and energy trading solutions. It was established in 2012, and its management consists of individuals originating from the Hungarian electricity sector. The company focuses on the remote control of small power plants, particularly solar power facilities. Energiabörze manages a solar power plant capacity exceeding 500 MW, given by a portfolio of over 150 power plants, 13 of which are owned and operated by Energiabörze itself. Of this capacity, 200 MW is accredited by the TSO for contribution to regulating grid balance, with nearly 50% accredited for automatic Frequency Restoration Reserve (aFRR) control, which is a key service to the TSO for managing grid balance (see the section on grid management). In August 2023, Energiabörze partnered with Kyoto Group and Kyotherm to deliver Heat-as-a-Service (HaaS) to KALL Ingredients Kft., a Hungarian food ingredient producer. This collaboration involves deploying a 56 MWh thermal energy storage solution, enhancing industrial process heat supply, and acting as a balancing asset on the grid. The steam storage will be used to act on the reserve market as well as to generate electricity to sell on intra-day trading, capturing periodic price premiums. Total annual revenue of Energiabörze amounts to approx. 28 bln HUF.

CEZ Magyarország Kft.

CEZ Hungary is a subsidiary of the ČEZ Group, a leading Central European energy conglomerate headquartered in the Czech Republic. CEZ is a significant trader of electricity in the Hungarian market; for solar power producers, it provides electricity Off-Take contracting and balancing services. CEZ Hungary utilizes its extensive experience in renewable energy production and specialized forecasting systems to offer accurate production schedules to its partners. This service is crucial for optimizing energy generation and aligning supply with market demand. The company operates a round-the-clock dispatching system capable of promptly adjusting forecasts in response to weather changes or technical issues, ensuring real-time optimization of energy production. Total annual revenue of CEZ Hungary amounts to approx. 482 bln HUF.

MVM Group Zrt

MVM Group is a state-owned energy conglomerate and the dominating entity in the Hungarian electricity market. MAVIR (the TSO in Hungary) as well as the Paks nuclear power plant also belong to this conglomerate, as well as several fossil fuel plants. Around 40% of all electrical power is generated by MVM affiliated power plants. A small percentage of this is generated by its Green Generation division, which comprises around 150 solar power plants with a joint capacity of 300 MW. Green Generation is still expanding its solar power activities. MVM provides comprehensive daily planning services to optimize the performance and integration of solar power plants into the national grid. These services include, apart from forecasting and daily scheduling, also operation and maintenance services to minimize downtime and maintain optimal performance. Total annual revenue of the consolidated MVM Group amounts to approx. 5080 bln HUF.

It is evident that Ewiser is the youngest firm in this market, and by far, the smallest firm. At the same time, the perception is that Ewiser is obviously professionally competent. Clearly, its style of communication and mentality is not like that of a large company. In Ewiser's own words, "it's clearly that we do something random so quickly, and sometimes not so thoughtful, but rather we run between the legs of the elephant, and with this speed we can essentially survive alongside them." In November 2024, Ewiser organized a professional conference that had a huge attendance and was favorably received. Ewiser knows, it has to be there professionally, because if it is not, it will soon not exist. "Whereas a bigger company can better afford to try something and then throw money at it and run it at a loss for two years. We clearly don't stand a chance of doing that."

From forecasting to intervention

Ever since Ewiser had established a data connection with all the solar power plants in its portfolio, it knew it had the possibility to regulate the production of these power plants, as the capacity of the inverters can be curtailed remotely. By the end of 2019, Ewiser started experimenting with curtailments of power plants. What it did not know was that within a few years, it would become its major source of income.

Ewiser's first step was to voluntarily engage its clients. The proposition was that Ewiser would install the necessary hardware on site free of charge, and clients participating in the regulation option, would receive a discount on the monthly service fee. The service contracts for 2021 were set up on this basis. The conception was to develop a reliable regulation system that can be accredited by the TSO and subsequently generate revenue by responding to the curtailment requests of the TSO, i.e., the TSO pays for taking capacity out of the grid for the purpose of maintaining grid balance. That was the moment when Ewiser realized that there was money in the regulatory market, and there was potentially a lot of money to be made, given the extent of its power plant portfolio Ewiser started to push the development of its regulation capacity fiercely. But when it was all done and Ewiser sat down with the TSO, MAVIR, said, yeah, yeah it is all very nice, but we don't pay to the entities in feed-in regimes. So, the investment was made, but no income was generated from it. Still, the regulation capability proved to be a savior a year later, when the steep price increases of balancing energy kicked in. Ewiser could use its curtailment capability to mitigate the balancing costs, by keeping the production of its portfolio as close as possible to the schedules provided to the TSO. Thus, while its regulation infrastructure did not yield direct revenue, it did so indirectly by keeping balancing energy cost in check.

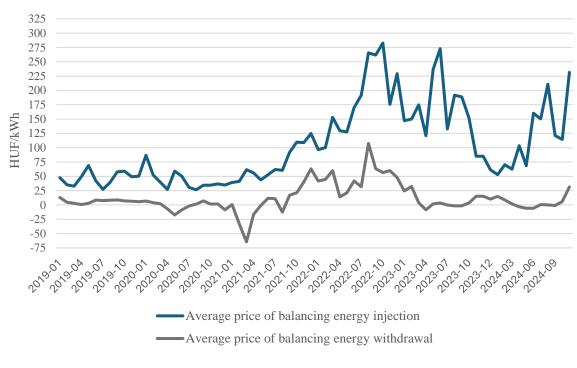


Figure 2: Average monthly balancing energy costs 2019-2024 in the KÁT-system

Source: MAVIR

The above figure clearly shows the technical limitations of solar power generation. Although the production of a solar power plant can always be curtailed by down-regulating its inverters, it is not possible to regulate them up, i.e., to increase production through intervention. This is why an on average tenfold price difference between upward-regulation (balancing energy injection) and downward-regulation (balancing energy withdrawal) for the 2019-2024 period is observed.

It was also interesting that politics got a little bit involved in all this, that the main saying was that solar power is only the cause of the imbalance problem, that it's a big problem, and that it's the main source of the escalation of balancing energy, but not that solar power could actually be part of the solution. Obviously, the solution is not complete because if you estimate that the sun is shining, but if it's not, you can't regulate the production of a solar plant upwards, but if it is the other way round, if it's shining more than you forecasted, you can curtail the production. And from the perspective of grid management, that's the problem most of the time anyway. But the position of the TSO side was, even still in 2021, to curtail the nuclear power plant in Paks rather than regulate solar farms. In 2022, the TSO changed this policy and allowed the power plant in the feed-in regimes of KAT/METAR to be part of the TSO's regulation capacity. This allowed Ewiser to close contracts for mFRR-capacities (see the section on grid balance management) and finally generate also direct income from its regulation infrastructure. As of 2023, Ewiser is also active in the aFFR-segment, which is an instant, automated means of intervening in power plant capacities. Also in this field, the market conditions change turbulently. Whilst in 2022, nice margins were achieved with the mFRR-capacities, by 2024, these margins have shrunk close to zero, and it is only aFFR-capacities yielding attractive margins. Still, as of today capacity regulation is the major source of income of the firm. Since solar power plants offer only the curtailment intervention, that is, downward regulation, Ewiser started to deal with upward regulation in a meaningful way in 2023 in order to be able to respond to TSO requests to increase capacity supplied to the grid, too. Ewiser now manages a portfolio of gas power plants and diesel aggregators of about 20 MV capacity, which can provide 24-hour availability. These installations are not owned by Ewiser though. Actually, there is the hardware, you've got the aggregate or turbine, then you've got TSO who wants to regulate it, and Ewiser functions as an intermediate data link. Ewiser controls the engines, executing the instructions of the TSO. Then, there is the hybrid power plant, which is a completely new thing for Ewiser; diesel and solar power are on the same grid connection point. These pose new capacity management challenges for the firm; they operate with entirely different rules and principles. And when you put the two together, all of a sudden, the disadvantages of each of them appear. The go-live was delayed several months. So, this has become a new branch of activity, in fact, the creation of a hybrid power plant. As Ewiser management puts it, "...and here we were not only involved in monitoring and regulation this hybrid power plant, because in the case of the gas power plant we are only the regulation manager, if it breaks down, we will wait until it is repaired. Here at a hybrid power plant, we don't have the experience or the team inside our company, but we have to actually take action, not physically going out to the engine, but proactively managing the whole process, so to speak, so that we can monitor, there's a fault here, this is important, fix it, and get a contractor out there. That's what you have to do, and we've actually taken on this knowledge and this role, which we hadn't thought of and didn't want to take on in the first place, but we're already pretty much involved in that."

Ewiser is meanwhile preparing for the next level, involving storage in its capacity regulation infrastructure. It is managing batteries in the background nowadays, to gain experience. Batteries have limitations with regard to the speed you can drain them, and the amount cycles you can recharge them. Ewiser is convinced that battery storage will take a great flight in the solar power sector because producers see that the price of electricity is low during the day and high in the evening. While increased usage of storage will equalize these differences over time, over the coming years, the difference will increase because of the further growth of solar capacities, which are basically causing the difference. The increase in solar capacity will, for the time being, outpace the growth of battery storage. Towards the end of the century most likely the battery capacity will catch up.

Managing grid balance

A Transmission System Operator (TSO) manages the balance in the electrical power transmission system by ensuring that electricity supply and demand are equal at all times. This balance is critical to maintaining the stability and reliability of the grid. As a result of the growing share of RES in electricity production, as well as increased decentralization of power production, maintaining grid balance has become a vastly more complex task over the past two decades. The TSO employs a range of means and mechanisms to manage the grid.

1. Frequency Control

Frequency is a direct indicator of balance between supply and demand. Deviations from the standard signal an imbalance. If demand exceeds supply, frequency will go down, and vice versa. Frequency control is a direct regulation of the mostly conventional generator turbines; most of this intervention is automatic, based on cooperation agreements, so-called Frequency Containment Reserve (FCR) agreements, between the TSO and the respective power plants, e.g., the frequency of the turbines is automatically increased when demand exceeds supply in order to restore grid frequency (50 Hz in Europe). RES capacities are not suitable for this type of control, and the substitution of conventional generator power plants with RES, limits the amount of capacity available for direct frequency control.

Grid balance management is also achieved via Frequency Restoration Reserves (FRR). These are the reserves which the TSO has contracted with power suppliers. Because these reserves have to be fail-safe, they are submitted to an accreditation process before being contracted by the TSO. There are two main types of these reserves, aFRR and mFFR, where a stands for automatic and m for manual. Ewiser is one of the entities providing these services to the TSO in Hungary. In case of aFRR, Ewiser receives an instruction to curtail a certain amount of capacity in the monitoring system from the TSO, which has to be executed immediately, that is, the capacity has to be withdrawn from the grid within several seconds. In the case of mFFR, it receives an instruction to implement a curtailment in the next 15-minute window (grid planning is based on 15-minute intervals).

2. Planned production interventions

Based on the daily plannings the TSO has received on the previous day, it can instruct producers in advance to step up or curtail their production at a certain part of the day. TSOs have historical data, augmented by algorithms, which enable them to predict the daily demand curve for electricity. Based on this they instruct producers, or specific producers in advance.

3. Other measures

TSOs also strive to manage the demand side of the electricity market. They encourage industrial users to shift usage to off-peak times. Here, the TSO is, of course, dependent on the general policy that is set by the respective ministries. For example, the introduction of dynamic pricing of electricity for households can make the job of the TSO easier, as consumers would increasingly use electricity when supply is high. With the increasing share of RES, such measures also become increasingly necessary. TSOs will have great benefits from grid storage. Therefore, the Hungarian government is offering a total of HUF 200 billion in ongoing programs to encourage families and companies to produce and store green energy until 2023. A recent tender for the expansion of system-level electricity storage will allow the construction of around fifty industrial energy storage facilities, with a joint storage capacity of 440 MW, to be connected to the grid by spring 2026. The government program will increase domestic energy storage capacity by a factor of 20 within two years. Furthermore, international trade of electricity will become more important, in the form of importing electricity during shortages and exporting surplus electricity to neighboring grids. Lastly, grid upgrades will be needed to secure the ability to manage grid balance in the future. The Hungarian TSO, MAVIR, plans to

invest HUF 100 billion per year over the next three years to modernize the electricity network in Hungary. The aim is to upgrade the network to meet future needs, especially in the integration of renewable energy sources. The changing needs of the electricity market require the expansion of network capacity and increased flexibility. Investments include the construction of new transmission lines and the expansion of existing infrastructure capacity. MAVIR's aim is to ensure that the network will continue to provide stable supply and support security of supply in the long term.

In the courtyard of the big players

There was another development in the market and regulatory environment that led Ewiser into an activity the young engineers had not foreseen when they started their venture back in 2017. Still, only two years later, it became a reality: Ewiser had stepped into the courtyard of the big players, it was commercially trading on the organized Hungarian spot power market. Two factors enabled Ewiser to make this decision. First of all, in the course of 2019, increasingly METÁR-type solar power projects were completed and connected to the grid. As explained earlier, these projects differ from the KAT-type projects in that they are selling their electricity to the market. Second, with the decreasing costs of constructing solar power plants, developing solar power plants had become feasible on a pure market basis, without the need for any subsidies. Therefore, a group of customers emerged that needed a forecasting and scheduling service provider and were selling to the market. Ewiser obtained its trader license by the end of 2019 and became a member of HUPX, the Hungarian power exchange. The exchange has two trading mechanisms. The Day-Ahead Market (DAM), on which electricity is traded for delivery on the following day. Prices are determined based on supply and demand equilibrium. The Intraday Market (IDM), which serves the purpose that trading and delivery are realized the closest possible to the execution. Adjustments are made closer to real-time to address shortterm changes in supply or demand. There is a price differential between Base Load (BL) quantities, provided by generators that can supply stable quantities to the grid 24/7, and Peak Load (PL) which settles demand and supply that exists in excess of the BL. Since Ewiser is selling the electricity of the power plants within its own (balancing) circle, it is primarily active on the DAM, offering PL quantities in accordance with its forecasts for the market-based power plants. Of course, it often reverts to the IDM, as either to buy electricity it has sold on the DAM, but was not produced, or to sell electricity in excess of the planning.

Technically, the trading is performed by a trading bot, which is instructed by an algorithm. This algorithm is also quite a complex one, maybe more complex than regulation. The code for this algorithm was developed by Ewiser itself; it relied on the programming competencies it had acquired over the past years. Naturally, the algorithm wasn't perfect right away, but it was and is tuned continuously. As it is AI-based it also has its own machine-learning features built in.

In its trading activity Ewiser was neither spared some decent market turbulence. Once more, however, the firm could exploit the turbulence in its favor. This time, the turbulence was caused by the Russian invasion of Ukraine and the subsequent war that emerged. Whilst the average PL price had already increased from 44 €/MW in 2020 to 123 €/MW in 2021, in 2022 electricity

prices surged on the back of the explosion of the gas prices. In 2022, the average PL DAM price was 289 €/MW, while the hourly price peaked at 1090 €/MW.

Average daily DAM prices on Central European spot markets 700 600 500 400 300 200 100 Feb. Jan Mar. Apr. May. Jun. Jul. Aug. Sep. Oct. Nov. Dec. --- RO SK **C7**

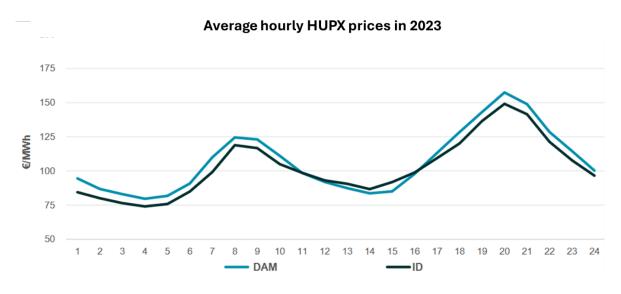
Figure 3: Average daily DAM prices in Central Europe

Source: HUPX annual report

The price increase in the market caused financial tensions in the KÁT-system. Therefore, the state agency that managed the KÁT-system offered producers the opportunity to switch to market selling, with the option to return to the feed-in regime in the future. Given that the prices that could be fetched on the spot market were on average 3-4 times higher than the regulated feed-in tariff, a massive number of KÁT-producers lived with this opportunity. Ewiser actively promoted this opportunity to its clients and assisted them in handling the administration connected to the market switch and the subsequent contracting. As a result, the trading turnover of Ewiser increased more than twenty-fold in 2022. Over 2023 average DAM PL prices eased back to 123 €/MW, whilst settling just under 100 €/MW in 2024. Nevertheless, Ewiser maintained high levels of turnover by extending its trading activities. Apart from selling on the HUPX, it also sells to its own customers, as solar power plants still consume energy when they are not producing. Apart from that, it is currently looking to other sales channels as well.

Returning to trading on the spot market, the real challenge is to deal with the huge fluctuations that occur during the day.

Figure 4. Average hourly HUPX prices in 2023



Source: HUPX annual report

The figure above shows the structural imbalance in the spot market, but the actual fluctuation on particular days is a multitude of this. In 2024, the highest hourly DAM PL price was 999 €/MW, whilst the lowest price was -150 €/MW. The negative price implies that those traders that were offering quantities in those hours in fact had to pay to the customer to buy the quantities. And that is the reality with electricity production: if it goes onto the grid, you have to sell it, you cannot make it disappear. Even with sophisticated algorithms like Ewiser uses, this is extraordinarily complex to oversee. That is why the firm is continuously improving its trading algorithms, to make them smarter and at the same time find optimums for curtailment of the solar power plants in its portfolio.

Ewiser Forecast, the first seven years and the next seven years

There is a philosophy that says human life unfolds in seven-year cycles. If we adopt this perspective to Ewiser, we can observe that it has now completed its first cycle of seven years. In the period 2017-2018, a completely new market niche opened up, in the need for forecasting and daily scheduling services for solar power plants. Most of the companies that jumped at this opportunity failed in face of the turbulence and steeply increasing requirements that occurred in the years that followed. Of the newcomers, Ewiser is, in fact, the only company that successfully operates today, together with four competitors, which are organizations of much larger scale and/or seniority. It seems that this typical feature of young startups, that is, the fact that whatever you can be proud of is not what you have achieved in the past but what you will achieve in the future, together with determination and talent, brought Ewiser where it is today. It is a service provider to several hundred solar power plants. With its portfolio of close to 300 MW capacity, it has an overall market share of around 10% and a 20% market share in the segment of the KÁT-power plants (capacity <0,5 MW).

What about the upcoming seven-year cycle that Ewiser is about to enter into? First, solar power generation capacities will grow further. It is expected that within 5-6 years, there will be 12 GW of solar power plant capacity in the country, which will exceed the domestic electricity consumption demand. On the scale of the European Union, photovoltaic capacity is forecasted to increase from the current 257 GW to 625 GW by 2030. It is worthwhile to mention though, that the bulk of this expansion will be through projects outside the segment where Ewiser has its strongest position. Having said this, the overall demand for balancing services assisting the task of the TSO will undoubtedly increase further. Storage infrastructure is going to be a key factor in this as well. Furthermore, virtual power plants are emerging as a game-changer in Hungary's energy market. These platforms integrate various renewable energy sources, optimizing their use in real-time. This approach enhances grid stability and reduces energy costs for consumers. Major energy providers in Hungary are already testing these systems. Industry experts believe virtual power plants could significantly boost Hungary's renewable energy adoption while making the market more resilient.

Internationalization of electricity markets and trade will evolve as a central element. A recent study concerning the RES integration in the Central-European region concluded that massive grid investments in the form of cross-border projects, smart metering and smart grids, and energy storage will be required for the region to realize energy transformation. Battery operators will have to play a role to shift loads and provide grid cost-effective grid services⁴⁰. In this vein of regional internationalization, the BSP SouthPool Energy Exchange, SEEPEX, and HUPX have recently expanded their electricity trading services in Slovenia, Serbia, and Hungary by joining ADEX, the Central and South-East European Energy Exchange. This move will facilitate the energy transition and consolidation of segmented markets, as well as the future expansion of pan-European market coupling. By establishing a single operation, market participants will thus have a single gateway to organized market trading and clearing in Slovenia, Serbia, and Hungary. The expectation of Hungary's Ministry of Industry is that with the continuing expansion of RES capacities Hungary could become of net exporter of electricity in the coming decade.

We do not know the exact course the future will take. What we do know though, is that at the end of the coming seven-year cycle, the landscape in which Ewiser navigates will be unrecognizably different from what the landscape was when it started its operations. This renders a rare degree of freedom in making strategic choices. Paraphrasing the famous words of Shakespeare, "we know what we are, but we do not know what we may be", it is up to Ewiser to find that out in the coming seven years.

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 $^{^{\}rm 40}$ OUTLOOK FOR RES INTEGRATION IN VISEGRAD COUNTRIES. V4ETTP Working paper, SFPA. November 2023

References

For this case study interviews have been conducted with members of the management of Ewiser in the third and fourth quarter of 2024. The financial information presented on the company was obtained from a public source e-beszamolo.hu.

Information on competitors of Ewiser has been obtained from the respective websites and press releases, Alteo (alteo.hu), Energiabörze (energiaborze.hu), CEZ Hungary (cez.hu) and MVM Group (mvm.hu).

Market and relevant industry information has been obtained from the websites and regular publications of the Hungarian Energy Agency (MEKH, mekh.hu), the TSO (mavir.hu), the organized electricity spot market (hupx.hu), the European platform of TSOs ENTSO-E (entsoe.eu); as well as from the report: PHOTOVOLTAIC BAROMETER – EUROBSERV'ER – APRIL 2024

Annexes

Annex 1: Financial Information

th HUF	F	wiser Forecas	t		ser Energy Tr lectron Energ			Ewiser ITS		M	agyar Erőműv	ek		Ewiser Group	
	Turnover	Operational result	Net Profit	Turnover	Operational result	Net Profit	Turnover	Operational result	Net Profit	Turnover	Operational result	Net Profit	Turnover	Operational result	Net Profit
2018	35 566	1 990	1 811										35 566	1 990	1 811
2019	238 730	73 756	67 118	3 018	102	93							241 748	73 858	67 211
2020	345 464	189 377	184 933	28 396	- 9877	- 10 054							373 860	179 500	174 879
2021	800 785	178 360	154 418	905 399	7 029	7 323							1 706 184	185 389	161 741
2022	15 600 105	458 797	6 986	19 659 236	126 519	20 628				1 300	387	387	35 260 641	585 703	28 001
2023	13 613 218	244 445	15 769	2 581 217	- 21 862	- 24 399	1 244 418	1 025 664	1 092 359	1 211 096	264 856	230 490	18 649 949	1 513 103	1 314 219

EUR	I	Ewiser Forecas	t		ser Energy Tr lectron Energ		Ewiser ITS Magyar Erőművek Ewiser Gr		Magyar Erőművek		Ewiser Group				
	Turnover	Operational result	Net Profit	Turnover	Operational result	Net Profit	Turnover	Operational result	Net Profit	Turnover	Operational result	Net Profit	Turnover	Operational result	Net Profit
2018	111 571	6 243	5 681	-	-	-	-	-		-	-	-	111 571	6 243	5 681
2019	734 095	226 800	206 388	9 280	314	286	-			-	1	-	743 375	227 113	206 674
2020	983 881	539 346	526 689	80 872	- 28 130	- 28 634	-	-	-	-	-	-	1 064 753	511 216	498 055
2021	2 234 190	497 624	430 826	2 526 063	19 611	20 431	-			1	1	-	4 760 253	517 235	451 257
2022	39 998 669	1 176 356	17 912	50 406 281	324 395	52 890	-	-	-	3 333	992	992	90 408 284	1 501 742	71 795
2023	35 653 018	640 201	41 299	6 760 207	- 57 257	- 63 901	3 259 131	2 686 214	2 860 888	3 171 860	693 658	603 653	48 844 216	3 962 817	3 441 940

Festival Furniture and Accessories Plc. ERP implementation

Bálint Blaskovics, Máté Molnár, János Tóth

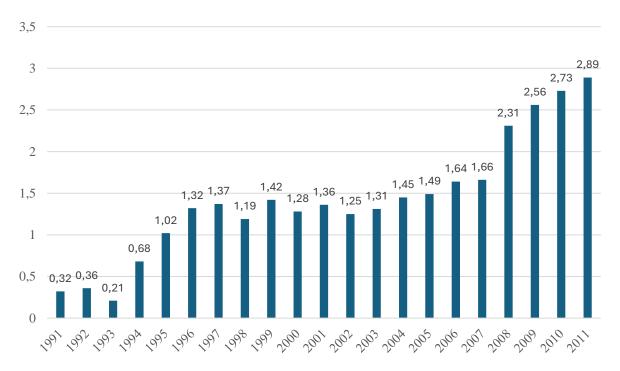
Introduction

Festival Furniture and Accessories Plc. was founded in 1991 by two young engineers immediately after the end of communism, with the aim of mass-producing designed furniture with a unique effect. Béla Tóth and István Nagykomlóssy met in 1980 at the Budapest University of Technology, where they studied mechanical engineering (and graduated in 1986); and, they also went to Eötvös Loránd University and Corvinus University of Budapest (at that time called Marx Károly University of Economics) as visiting students to study economics and design. After working for three years in state-owned furniture factories around the fall of communism (and before that, during university), they realized that although there was an abundance of modern and designed furniture, this abundance did not offer a sense of uniqueness desired by many people who wanted to make their rooms special. In 1989, sensing that the world was about to change, Béla and István travelled to the West, to Germany to learn the main elements of capacity planning and production optimization. Recognizing that without a proper organizational structure and effective management, there is no chance of long-term success, they spent their saved money on training with an up-and-coming consultancy firm that had changed its name and was headed by Péter Horváth. Although Péter hadn't usually given such training, years later Béla and István thought it helped a lot not only that they could communicate in German but also that Péter could finally speak to someone in Hungarian.

After two years of living abroad and studying, they came back to Hungary, where they tried to make a go of it in the chaos after the regime change - with less success at first, and then more and more success later. They sold everything they didn't need to get started, both their families contributed substantial sums, and they managed to get loans on favorable terms, which enabled them to set up their own factory in Pécel, near Budapest. They chose this town because it was close to Budapest and thus had a good infrastructure, but the financial conditions were more favorable than in Budapest. From the very beginning, they insisted on injecting some semblance of uniqueness into every piece of furniture, so that the customer not only gets a piece of seating or storage, but also with it and through it, feels that he himself or she herself is unique and special. The idea sounded good on paper, but unfortunately it didn't work so well in practice; while in 1991 and 1992 the company was able to generate good sales figures, by 1994 the idea seemed to have failed. People had little money to live up to their uniqueness, and Festival Furniture and Accessories Plc. was on the verge of bankruptcy. Then, fortunately for them, word got out that a large number of unique-looking pieces of furniture were wanted for the World Exhibition in Hungary. As they say, the rest is history. The company was stabilized by a substantial government order; and as people began to have more disposable income, they turned to Festival Plc. products. Over the years, the company has launched a number of small and large product portfolios. Some portfolios were specifically designed for young people, trying to ride and incorporate current trends; and, others were designed for older people,

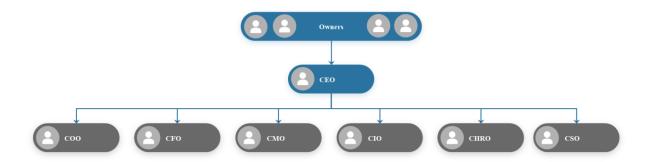
representing a more understated, classicist style. Although there were minor ups and downs, Festival Plc. grew gradually, and by 2008 it was the country's number one furniture company. It has maintained its leading position and has almost ten times as much revenue in 2011 as at the beginning. In line with the size of the company, the management has gradually grown, and Béla and István have been joined on the board by their children, Sára and Károly, with 10-10% ownership (Béla and István retaining 40-40%).

Figure 1: Revenue of Festival Furniture and Accessories Plc. since its foundation to 2011 (billion HUF)



The two founders reduced their presence in the management of the company and handed over the control to Sára and Károly, taking a stand only on critical issues and, when a new product was released, giving their opinion on it. However, they spent and still spend most of their time at Lake Balaton, mainly sailing and gardening. They also thought they needed an experienced manager, so they hired Sándor, who had a reputation as an experienced manager, having managed several organizations before and after the end of communism. He held the position of CEO, and 6 other people (COO, CFO, CMO, CIO, CHRO, CSO) were hired for various directorships. It was important that they had solid experience, as unfortunately the "founding fathers", Béla and Sándor, had not managed to overcome the lack of confidence they had acquired in the previous era (see Figure 2).

Figure 2. The ideal organizational structure of the Festival Furniture and Accessories Ltd. identified by the CEO (Sándor)



Under Sándor's leadership, the new company managed to modernize its production and increase sales, thanks to the experience and expertise of the COO and the fact that the operations officer found common ground with the CIO very easily - the production and related software could be optimized very easily. The production flow is such that the engineers in the company optimize the sequence of the products to be produced based on the weekly plans, taking care to minimize the cost of change, i.e., to minimize machine downtime. The optimization software to support this was developed for two years, but everyone is happy with the result. In particular because the sequence and the settings required are automatically sent to the machines, which also automatically adapt the settings requested.

As a result, the bottleneck has become the loading of raw material (unfortunately, there is no way to automate this because of the special materials) and the additional manual operations. So, the workflow has become to produce 100-220 units of semi-finished furniture (as much as can be produced in one "loading", i.e., the maximum filling of the bins with raw material; and obviously, the final number depends on the furniture itself to be produced), refill the machine with raw materials, carry out the additional operations (e.g., wood handling) and then finish the production operations with the machine. However, the software has opened up an unexpected possibility, namely the possibility of designing and producing truly custom-made furniture. Even with a large number of workers, the machines can finish in about 1 minute less than a human, and thanks to the software, this is enough to theoretically change the setup up to 5,000 times, with no difference in production time. When Istvan heard this, his jaw almost dropped, because when they started the company, everything had to be set up manually, and it took two hours to complete this step of the process.

The reduction in time needed for the changeover also expanded the marketing possibilities, and the company gradually introduced custom-designed furniture. This was facilitated by a website where potential customers could, if they wished, design their own furniture and send it to the company after registering and paying a downpayment. The latter was necessary because, people basically like to design their homes, including their furniture, not only when they are shopping but also for leisure, which was also the idea behind the Sims game as well. Thus, the company received a large number of bids that were not serious (in fact, at one time 99% of the bids belonged to this category). However, the company did not want the potential customer to play

"furniture-Sims" on the webpage and introduced the downpayment; and, from the moment that the customer should make the downpayment (10% of the estimated purchase price), all the bids received were serious. Once submitted, a salesperson contacted the client and clarified the details, an engineer designed the furniture, the visuals were re-approved with the client and production could start. Although mass production, with the illusion of uniqueness, is still the company's main product, the focus is increasingly on truly unique products, which by 2019 will account for 15% of volume and 30% of total turnover, with much higher margins thanks to higher prices and minimal downtime. Thus, even the genuine custom manufacturing department had a sizeable workforce of around 190 people (in addition to mass production of 800 and support staff of 220).

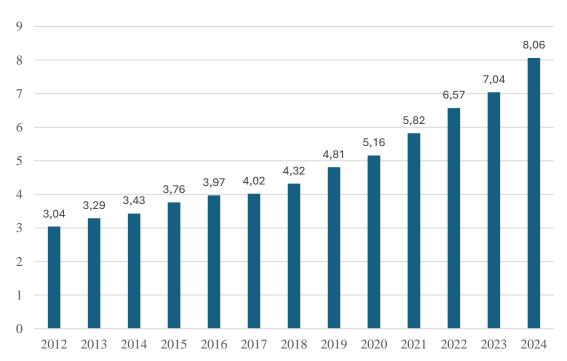
In 2019, at the suggestion of Sándor (which Béla and István supported as well), the children took a grandiose step and started to expand internationally. As a significant number of their foreign suppliers are based in German-speaking countries (Germany, Austria), they first chose Austria as their target country. They also decided not to invest in a greenfield project - that would have been too risky - but to buy an existing plant, one with a good sales network but where the numbers were not what they should be. So they chose a medium-sized, family-owned plant near Graz. The negotiation went smoothly (managed by Béla, István and Sándor), and the financial countervalue and terms were quickly agreed. Part of the deal was that the management outside Hungary would be appointed by the former owners for as long as they could generate profits above group average, but for a minimum of 15 years. Furthermore, they were also allowed to determine the supplier network, whether product or service. Fueled by the success of the Graz acquisition project, they embarked on further international expansion, buying a plant first in a Slovakian city, then in a Romanian city and finally in a Czech city. In each case, it was important to buy a company with a good sales network, which Sándor believed was the key to success, and to retain local management even if they had not previously achieved breakthrough success.

Despite all of Sándor's efforts to unify the subsidiaries, the Plc. had to reckon with two organizational factors that were also felt at a strategic level. The first was the different organizational structures created in each company, which were designed to achieve the most efficient operation possible in each subsidiary, adapted to local characteristics and needs. The second difficulty was linked to the decision-making process and the focus of the different actors, which was based on the fact that the CXOs were not uniform; and therefore, neither the knowledge in the organization nor the clear decision-making power was necessarily given to each subsidiary. This could also lead to the puzzling situation where, for example, the Romanian subsidiary, despite its best efforts, did not have the required CIO competencies. Centralized and rapid decision making has from time to time caused problems for the group, and these problems have been compounded by difficulties caused by staff turnover and the related information flow. In a company, such as the Plc., which is highly attentive to its production processes and technological development, it is worthwhile to record the opinionforming linked to engineering activities at the decision-making level. Failure to do so can have unforeseeable consequences in terms of increasing internal conflicts between different areas and the development of an inappropriate organizational culture, which in itself can create a toxic environment.

To this end, Sándor and other board members were advocates of gradual change and knew that time had to be allowed for the subsidiaries to catch up with the group's flagship, in terms of decision-making processes, organizational structure and organizational culture. To achieve the latter, regular knowledge-sharing events were organized for the Group's specialized divisions, which served not only to get to know each other but also to share useful insights and experiences. It was precisely during such an event that it became clear that Austrian engineers have a much greater say in the development of individual production processes than in the other companies of the group, and that there is no pronounced information flow on process development issues among their Slovak colleagues.

Recognizing this, good practice sharing and related policy and process harmonization activities have naturally started. The case highlighted the multiple forms of development that were increasingly needed in a world of fast-paced IT and technological innovation, which also affected the furniture industry. With the production technology that Festival Furniture and Accessories Plc. had at its disposal, it was very easy to make a substantial profit on the local market if coupled with a well-established distribution network. This worked perfectly well as long as there were three plants; but it was noticed that with the fourth and fifth plants there were serious coordination difficulties. Several reasons have been identified, the most fundamental of which, i.e., where the company is lagging behind the most, is the lack of an integrated ERP system but instead working with specialized software (e.g. accounting, logistics, sales, customer relationship management or the production optimization system mentioned earlier) and often using free solutions (in addition to specialized software, they also work with Excel, or, as it is known internally, Ixel). Despite all this, however, the company had achieved stable growth in terms of turnover (see Figure 3), but it was feared that this could not be maintained for much longer if no intervention was made.

Figure 3: Revenue of Festival Furniture and Accessories Plc. since its establishment (billion HUF)



Finally, a senior management meeting was convened on September 30, 2024, where Béla, István, Sára, Károly, Sándor and the six CXOs were joined by the heads of the subsidiaries or their representatives (the Austrian, Slovak and Czech were represented in person, but the Romanian was unable to attend even online due to illness, and sent the COO there in his place). The workshop, originally planned to last one day, ended up being significantly longer, lasting almost three days. The initial optimistic mood quickly faded, and heated (but strictly reasoned, professionally based and maintaining collegiality) discussions ensued among the participants on what type of system would be ideal and how it should be implemented. The biggest debate was about what kind of system should be introduced at all. Many people argued in favour of SAP as a reliable, German solution and a long-established market leader. But elements of the O365 environment and Oracle's solution were also mentioned. In fact, the COO proposed developing his own system, citing the complexity of the production processes. And the managers of the subsidiaries wanted to be able to use their own system, which they were already familiar with and used to, as they argued that this would allow them to better meet local needs and legislation (first only the manager of the Romanian subsidiary raised this issue, then the Slovakian one joined in, and they argued so well that they brought the managers of the Austrian and Czech companies on board). Coordination would then be ensured by regular reports, prepared in a given structure. In the end, Sándor postponed the solution of the issue, saying that they would have time to make a choice when the other issues were decided, although Béla and István were already inclined to accept the majority's arguments on SAP and to allow the subsidiaries to have their own system, with the proviso that there should be 3 data transfers a day rather than 1 a day.

There was also no consensus on how to implement it and there were several possible solutions. One, and the most drastic, was the so-called big bang, where all the new features would be rolled out everywhere at once, but there were also ideas to introduce it in one site as a pilot, or to try it in only two areas less relevant to production (marketing and HR), also as a pilot, and then to introduce it incrementally in the other areas more closely linked to the core business in each site. In addition, there was considerable debate about whether to use in-house resources or to ask a consultancy firm to implement the system.

The CIO of the parent company, to everyone's surprise, argued in favor of using consultants (mainly because of the complexity of the systems) and his colleague, the CFO, also thought it would be cheaper to use an external but more efficient resource. However, Béla, in contrast, believed that if all data was shared with a consultancy (and it should be for effective implementation), it would be stolen and used elsewhere, and said that as long as he had even a 1% stake in the Zrt, he would block any such initiative. In the end, István managed, after more than an hour of long arguments, to at least get the consultants to submit a bid, and of course, at the bidding stage, strict confidentiality should apply to everyone and the bid should not be shared with anyone else. A further major point of contention was how to manage the soul of the company and the key to its success, efficient production, and to what extent this should be integrated into the future ERP system, or remain in the system developed specifically for this purpose and just import the final result into the system.

Three days have passed, but it seems that even with the more relaxed evening programs, and thus the more friendly atmosphere, we have not been able to agree on the cardinal issues. As

much as Alexander leads the organization, he feels that he should not take decisions by force, but that it is important that the others accept them. He therefore asked Béla and István for help to make one last decision, which is both crucial to the success of the company and extremely risky. He knew that their decision would be accepted by all, whatever it might be, because of their professionalism, authority and insight. So on Wednesday, at the last workshop, all eyes were on Béla and István, and, as in 1991, they would have to make a decision. They have to weigh up all the considerations to produce a system that can deliver long-term profitability, is welcomed by employees - or at least not resisted to the extreme -, does not lose its charm and supports growth. What approach should you take when choosing systems? Do you get a boxed product and then customize it, or develop your own? Do you leave freedom to subsidiaries or centralize control? Do you introduce it everywhere at once or gradually? Should consultants be employed or should it be managed in-house, even at the cost of expansion? Is the sufficient amount of resources and the top management support enough, or despite these, the project can still fail? And most importantly, what processes should ERP support and how? In other words, where should the specialized software and the input-output relationship be located and where should the processes be managed from the ERP system?

Performance evaluation of academics in higher education

Gergely Kováts

Part 1

The Capital University is a medium-sized public university in Hungary with an excellent reputation and a strong economic and social science profile. As in all public universities in Hungary, its academics are public employees and are therefore subject to the Public Employees Act, which requires all public employees to be regularly appraised (called minősítés in Hungarian). However, the details of this are left to sectoral regulators. The Higher Education Act has left it to higher education institutions to develop the criteria and process of evaluation. It has allowed for performance-based pay differentiation between academics, i.e., pay differentials between academics in the same job despite the pre-defined salary scales.

The senior academic leadership of Capital University expressed the need to develop a system for the performance evaluation of academics that is well suited to the university's activities. A lively debate on the necessity, purpose, and elements of the system to be developed unfolded at a meeting of the Senate, the main decision-making body of the university. The Senate finally voted to set up a performance evaluation system, the aim of which is not primarily to monitor but to support planning individual careers and performance, and in line with this, the resources needed. At the same time, the Senate set up an ad hoc committee to develop a set of criteria and a process for performance appraisal.

Under the system introduced, all academics are required to fill in the performance evaluation table (PE-table) for the previous calendar year in Excel in February, in which they must indicate the activities carried out in the last year. The activities to be taken into account are grouped into four categories and each activity is assigned a specific number of points. Earnable points are capped in some categories and sub-categories. The four groups of activities are as follows:

- 1) Teaching: contact hours, examinations, responsibilities in organizing teaching (e.g., course leader), publication of textbooks and other teaching materials, student evaluation of teachers
- 2) Publications, citations, and research activity: published journal articles, books, other scientific publications; independent citations; organization of research activities and events within the university
- 3) Professional and public activities: university committee tasks, tasks in the academic public life (e.g., editorial board membership), Student Scientific Conference (TDK/OTDK) activity, PhD-related tasks
- 4) Other activities (no points awarded): talent management, off-campus research and event organization, media appearances

For each job (assistant lecturer, assistant professor, etc.), the number of points recommended for each year was fixed so that those who earned the recommended number of points would be able to meet the requirements for a career step in 5-8 years. This was relevant, for example, in cases where the promotion also required some form of external assessment (e.g., the assessment

of the Hungarian Accreditation Committee in the case of university professors or the assessment of the Hungarian Academy of Sciences in the case of awarding the title of Doctor of Science (DSc)).

Academics sent the completed PE-tables to the head of the institute, who forwarded them to the faculty leadership after discussion.

Part 2

A few years after the development and implementation of the performance evaluation system, a new rectoral leadership was appointed and requested a young researcher at the university to review the performance evaluation practices of the individual faculties. A report was drawn up which found that only two of the faculties had more or less regular performance evaluations, with annual completion and collection of PE-tables. The results of these were taken into account by faculty leadership in promotion decisions. In other faculties, however, the performance evaluation did not work at all, and there were even faculties that refused to participate in the survey.

A common problem expressed by interviewees was that, with few exceptions, performance evaluation has no meaningful impact due to conflict avoidance, lack of interest on the part of academic leaders, and lack of resources. Even in the faculties where the evaluation was carried out, there was no feedback on the results, no summary reports, and only occasional annual appraisal meetings between heads of departments and lecturers. The report found that many evaluated faculty members perceived the process as a bureaucratic ritual and an unnecessary administrative burden. Another problem was that academics felt uninformed about the system and that there was no established practice of career planning for academics at the university. There was also more criticism of the self-completion nature of the Excel spreadsheets, which was deemed very time-consuming due to the level of detail required in the spreadsheet.

The new leadership set out to reform the performance evaluation system with the aim of motivating academics and researchers, increasing their financial reward, and strengthening the stability of academic careers. The decision was also prompted by changes in the university environment. One important change was the more predictable nature of public support for the university and the increase of its own revenues, which could also cover performance-related pay. However, only the Faculty of Business Administration increased its own revenue significantly, while other faculties, such as the Faculty of Social Sciences, remained stagnant.

Another significant change was the change in the legal environment: a government decree prescribed public institutions in higher education to apply specific questions and evaluation scales for the appraisal of their academic employees.

The key elements of the renewed performance appraisal system were as follows:

- The university linked the performance evaluation process to a reward system (see details later)
- The University retained the previously established PE-table and the point expectations for each job. The scoring system of the PE-table was modified in that only those

activities remained eligible (scored) that could be verified externally (from independent sources). Other activities could be included in the PE-table but were not scored. In addition, no points were awarded for work for which the academic had already received an allowance, for example, as a supplement to earnings or a grant.

- From a technical point of view, an important change was that the completion of the PEtables was now done in the Neptun study administration system instead of Excel, and the table was pre-filled with data from other input sources so that the academics only had to check and fill in missing data. The PE-tables completed by the academic continued to be subject to a two-stage check: first the head of the institute and then a faculty committee checked and approved (or rejected) the activities in the table.
- The mandatory appraisal procedure stipulated by the government decree was included in the process in addition to the completion of the PE-table. Here, the head of the institute appraised the work of the academic on a scale of 0-3 according to the criteria set out in the decree, based on the PE-table and other sources. Based on the average of the responses to the questions, the appraisal ranged from excellent (80-100%) to inadequate (below 30%). An inadequate rating was given if the academic scored 0 (i.e. unsatisfactory) on at least one of the criteria.
- The expected performance for each job did not change compared to the previous period. However, if an academic scored above the expected performance for his/her job on the PE-table, he/she could receive a fixed-term pay rise (12 months). This was also conditional on the academic meeting the expected teaching workload and obtaining a rating of at least 80% (excellent) in the appraisal procedure. The size of the pay increase is shown in the table below. By comparison, the statutory salary scale for this period was HUF 554 000 for a university professor, HUF 388 000 for an associate professor, and HUF 277 000 for an assistant professor (all at grade 1).

Table 1: Pay increases per performance category

Over-performance	Amount of the pay increase (gross per month)
0-20%	0,- Ft
20-40%	60.000 - 130.000 HUF
40-60%	130.001 - 200.000 HUF
60-80%	200.001 - 270.000 HUF
80% or more	270.001 - 340.000 HUF

Within each band, the Dean (or the Rector in the case of university professors) could decide on the specific pay increase. In addition, the Dean could adjust the amount of the salary increase upwards or downwards by one category if the academic deviated significantly from the faculty average in teaching or research or if the Dean considered that the academic had performed an activity that could not be recognized by a point in the PE-table (e.g., internationalization, implementation of the institutional development plan, etc.) in order to achieve the university's priority objectives.

• The budgetary situation of the faculty also influenced the actual amount of the salary increase: if the faculty's available resources for salary increases were less than the resource requirements for a pay increase, the amount of the pay increase for each academic had to be reduced proportionally.

Annexes

Annex 1: Requirements

	Lecturer	Assistant professor	Associate Professor	University professor	Comment
Contact hours	min. 12 lessons per semester	min. 12 lessons per semester	min. 10 lessons per semester	min. 8 lessons per semester	As required by law
Requirement per year	140 points	160 points	180 points	200 points	

Annex 2: Main categories and scores in the PE-table (Part 2)

	in Hungarian	in a foreign language	maximum score
1. Education			
Classroom lessons			
Lecture	6 points per lesson	9 points per lesson	
PhD class	8 points per lesson	10 points per lesson	
Conducting a seminar at the undergraduate level	5 points per lesson	7 points per lesson	
Conducting a seminar at Master's level	6 points per lesson	8 points per lesson	
Consultation			•
office hours	3 points per lesson		
Thesis consultation at the bachelor's level	1 point/student/term	1,5 points/student/term	
Thesis consultation at Master's level	2 points/student/term	3 points/student/term	
Examination	1	1	I.
Examination at the end of the semester	0,1 point/student		
Complex exams	0,2 points/student		
Thesis evaluation on BA/BSc level	0,5 points/thesis	0,75 points/thesis	
Thesis evaluation on MA/MSc level	1 point/thesis	1,5 points/thesis	
Membership of the Final Examination Board	1 point per membership		
Membership of the Admissions Committee	1 point per committee		
Organization of teaching			
Study program director	8 points/year		
Course leader	3 points/subject		
Publications for educational purposes			
Writing a textbook	8 points	10 points	
Writing an exercise book	8 points	10 points	
Editing a reader	3 points		
Student evaluation of teaching result			
Autumn semester (pro rata for average marks above 3.5)	0-10 points		

	in Hungarian	in a foreign language	maxim score	um
spring semester (pro rata if average grade above 3.5)	0-10 points			
2. Publications and research activity				
Scientific publications				
MTA Class IX A	36 points			
MTA Class IX B	28 points			
MTA Class IX C	20 points			
MTA Class IX D	14 points			
Scimago Q1	-	60 points		
Scimago Q2		50 points		
Scimago Q3		40 points		
Scimago Q4		30 points		
Other peer-reviewed paper	8 points	20 points		
Other not-peer reviewed paper	2 points	2 points		
Conference full paper	4 points	6 points		
Writing a book	30 points	50 points		
Writing a book chapter	10 points	15 points		
Book editing	10 points	15 points		
Working paper	3 points	4 points		
Research report	2 points	3 points	max	15
Conference abstract	2 points	3 points	points	
References	2 points	3 points		
Independent references in Hungarian/foreign language publications	1 point	3 points	max points	50
Organization of research within the university				
Writing a grant proposal as a consortium coordinator	8 points/application	10 points/application		
Writing a grant proposal as a topic leader	6 points/application	8 points/application		
Participation in writing a research grant proposal	3 points/application	4 points/application		
Leader of a successful research grant proposal	8 points/application	12 points/application		
Participant in a successful research grant	4 points/application	6 points/application	max	40
Research program leader (without external funding)	6 points/application	6 points/application	points	
Organizing a national program (e.g., Researchers' Night, Hungarian Science Day)	5 points/programme			
Conference organization	6 points/conf	10 points/conf		
Organization of a workshop	3 points/ws	5 points/ws		
3. Professional and public activities				
University duties				
Senate and Faculty Council membership	5 points/membership/year			
Scientific public life				
MTA or other national scientific committee	3 points/membership		max	40
membership	5 points/memoersmp		points	
Journal editor, editorial board member	3 points/membership	5 points/membership		
Leadership positions in professional bodies	3 points/membership	5 points/membership		
Membership in a national higher education committee (e.g. MAB)	3 points/membership			

	in Hungarian	in a foreign language	maximum
	iii riuligariali	in a foreign language	score
Student Scientific Competition (TDK/OTDK)			
TDK consultation	1 point/thesis		
TDK, OTDK essay evaluation	1 point/thesis		
TDK, OTDK jury membership	1 point per membership		
TDK section secretary	3 points		
Faculty, University TDT President, Secretary	10 points		
Doctoral training			
Ph.D supervision	3 points/student/term		
Ph.D Committee Chair, Secretary	2 points per committee		
Ph.D. committee member	1 point per committee		
Review of thesis and draft thesis	5 points		
4. Other activities			
Talent management			
Organizing a professional event (with			
professional content)			
Organization of a study competition			
Conducting a course in an advanced college			
Organizing research outside the university			
Off-campus conference organization			
Social impact			
Publication in a professional journal, business			
magazine, newspaper, popular magazine, etc.			
Presentation at a professional/business event			
Interviews, media appearances (internet, TV,			
radio, print media)			

Annex 3: Appraisal (part 2)

In the rating appraisal process, the Head of the Institute assesses all academics and researchers according to the following criteria. The points obtained in the assessment shall be divided by the points available, calculated on the basis of the criteria considered. Based on the average of the answers to the questions, the appraisal may be excellent (80-100%), adequate (60-79%), poor (30-59%) and inadequate (below 30%). An academic is appraised as inadequate if he/she scores 0 (i.e., inadequate) on at least one of the appraisal criteria.

Viewpoint		Nature of the question	Featured on	Correspondent	Poorly adequate	Not appropriate
Providing education and training	on, research	mandatory	3 points	2 points	1 point	0 points
2. Other activities re education (in part supervision, scien activities, particip international mob programs and teach	icular, thesis atific student eation in ility	mandatory	3 points	2 points	1 point	0 points

Vie	wpoint	Nature of the question	Featured on	Correspondent	Poorly adequate	Not appropriate
3.	Participation in the public life of the higher education institution	mandatory	3 points	2 points	1 point	0 points
4.	Activities in the field of science promotion, participation in conferences	mandatory	3 points	2 points	1 point	0 points
5.	Activity in the field of talent management and remedial action	mandatory	3 points	2 points	1 point	0 points
6.	Students' evaluation of the teaching work in relation to the overall quality of teaching	mandatory	3 points	2 points	1 point	0 points
7.	Students' evaluation of teaching in relation to the teaching attitude that supports students' professional development	mandatory	3 points	2 points	1 point	0 points
8.	Responsibility and commitment to work	mandatory	3 points	2 points	1 point	0 points
9.	Punctuality, diligence and hard work	mandatory	3 points	2 points	1 point	0 points
10.	Other criteria set out in the Implementing Decree (e.g., cooperation skills, communication skills)	mandatory	3 points	2 points	1 point	0 points
11.	Publications and other results protected by intellectual property rights, results related to sports activities, sports organization	assessable if relevant	3 points	2 points	1 point	0 points
12.	Activity and related resource generation capacity to participate in calls for proposals	assessable if relevant	3 points	2 points	1 point	0 points
13.	Activities in doctoral training, participation in scientific organization tasks	assessable if relevant	3 points	2 points	1 point	0 points

Annex 4: Academics' salary scales

Job title	Proportion (%)	Pay grade	Salary
University professor	106	3.	587 700
University professor	103	2.	571 000
University professor	100	1.	554 400
Associate professor (if habilitated)	85	4.	471 200
Associate professor	76	3.	421 300
Associate professor	73	2.	404 700
Associate professor	70	1.	388 100
Assistant professor	54	3.	299 400
Assistant professor	52	2.	288 300
Assistant professor	50	1.	277 200
Lecturer	40	2.	221 800
Lecturer (trainee)	37	1.	205 100
College professor (if habilitated)	90	4.	499 000
College professor	81	3.	449 100
College professor	78	2.	432 400
College professor	75	1.	415 800
College associate professor	61	3.	338 200
College associate professor	58	2.	321 600
College associate professor	55	1.	304 900
College assistant professor	49	3.	271 700
College assistant professor	47	2.	260 600
College assistant professor	45	1.	249 500
College lecturer	40	-	221 800

Ilcsi: from family business to professional company

IFUA Horváth

Ilcsi is one of Hungary's best-known natural cosmetics companies. Its products, which contain only natural ingredients and are not tested on animals, offer thousands of consumers in Hungary and abroad a natural alternative in beauty care. Selling through beauticians has been the secret to the company's success in their home country for some time, as it not only created a brand-loyal intermediary layer but also ensured that end consumers use the products that best suit their skin. The company, which has been in business for over 60 years, is constantly looking to increase its share of the domestic cosmetics market, and opening to the B2C segment is a key part of this. This determination also required a significant transformation of the company's operations and business model. Although the Ilcsi brand still enjoys unwavering popularity, Ilcsi has to prepare itself for market obstacles and increased competition.

"There's no way around it, you have to meet the challenges of an expanding cosmetics market!" Ferenc Molnár thought while inspecting the lemongrass harvest. True, the company has been successful for 60 years, but the industry is changing at an ever faster pace. The family business has always been a matter close to his heart, as he is responsible for the legacy that bears his mother's name, for the operation of an authentic natural cosmetics brand that is also relevant on the international scene. He wants to ensure brand awareness and market share in an increasingly dynamic environment: he wants to prepare the family business for the biggest challenges of today, including how Ilcsi appeals to the general public.

To accomplish all this, Ferenc has hired Zoltán Nagy-György, a professional who is experienced in business development and management. He has big plans for Zoltán, as he is increasingly thinking about changing the way Ilcsi operates, to increase the size of the company and find a more direct route to its customers.

The cosmetics market

The cosmetics industry is a fast-moving consumer goods (FMCG) industry. However, it is important to underline that beauty products differ from 'normal' FMCG products: they are significantly more expensive and have a relatively high gross margin per product.

¹ These are mostly products that the consumer acquires quickly, in an instant transaction, and relatively cheaply. The products are sold in large quantities, but the profit on each product is usually small. The most common examples of FMCG products are household and chemical goods, cosmetics, toothpaste, but also include non-durable consumer goods such as light bulbs, batteries, stationery, etc. Some groupings also consider pharmaceuticals, packaged food and beverages as part of the FMCG industry. (Wikipedia)

Natural or organic?

There is often confusion in the vernacular about what we call organic, bio, natural, or eco cosmetics, so it is important to clarify these terms. Since the words organic, eco and bio have the same meaning, only their organic and natural counterparts need to be defined.

To qualify as a natural cosmetic product, it is sufficient that the manufacturing company does not use certain ingredients (e.g., animal fats, hydrogenated vegetable oils) and processes (e.g. genetic modification) in the production of the product. So, if the product meets the above criteria, it is considered a natural cosmetic, even if it contains artificial substances.

To qualify as an organic cosmetic, a more stringent set of criteria must be met. The product must contain a certain proportion of agricultural ingredients from controlled organic production. Thus, a product can be certified organic if at least 95% of its ingredients come from organic farming.

Cosemtics

Natural cosmetics

Not organic cosmetics

Non-natural cosmetics

Source: own editing

Figure 1: Classification of cosmetics

So, as shown in Figure 1, all organic cosmetics are natural, but not all natural cosmetics are organic.

Regardless of whether the product is natural or organic, its range of uses is wide. The main classes that most cosmetic companies use to classify their products are: skin care, body care, hair care, oral care, perfume, decorative cosmetics, and sun protection. Natural cosmetics have become a major market player in recent years, mainly in the decorative cosmetics, skincare, and body care categories. Of course, this grouping can be further subdivided into subcategories. An alternative breakdown of our classification is provided in the Annexes.

Quality requirements

An international nomenclature is used for cosmetic products, which refers to the list of ingredients. This is based on the INCI (International Nomenclature of Cosmetic Ingredients) standard. The list of ingredients must be displayed on the side or bottom of the product. The ingredients are listed in percentage order, from highest to lowest. Always look for undesirable synthetic ingredients at the bottom of the list.

There are several international organizations for the certification of cosmetic products, the most famous of which are NaTrue, BDIH, ECOCERT, Cosmebio, Soil Association (UK), ICEA (Italy), USDA, COSMOS. The most recent of these, COSMOS (COSMetics Organic Standard), is the most prestigious certification, a collaboration between the major European certification

bodies - Ecocert and Cosmebio in France, BDIH in Germany, the Soil Association in the UK and ICEA in Italy - with the aim of establishing a credible and clear set of standards for organic and natural cosmetics.

Beauty trends

Market research company Nielsen regularly analyses global beauty trends. Their work shows that products containing natural ingredients accounted for 3-5% of the beauty market in the 2020s. Based on Nielsen's Retail Index, this represents \$2-2.5 billion in sales. By comparison, ten years ago, this market share was 1%, which amounted to a sales volume of \$230 million.

It is interesting to note that the beauty market has been slower in adapting to the use of natural ingredients (all-natural products still only account for 1.5% of the market), but its sales have grown at a higher rate than the personal care segment. Sales of beauty products containing natural ingredients have grown on average by over 10% in recent years.

Organic products are expected to see similarly strong growth in the future, with demand for these products set to reach a global total of \$25 billion by 2025, according to predictions of Grand View Research. Research shows that hair and skin care products are the most in demand. The growing demand is driven by consumers increasingly avoiding the use of cosmetic products containing petroleum derivatives in order to protect the environment and lead healthier lifestyles.

Although there are no accurate data on the sales of natural and organic cosmetics in Hungary, Nielsen's data show that the beauty segment has grown the most (12%), followed by facial care (9%) and body care (5%).

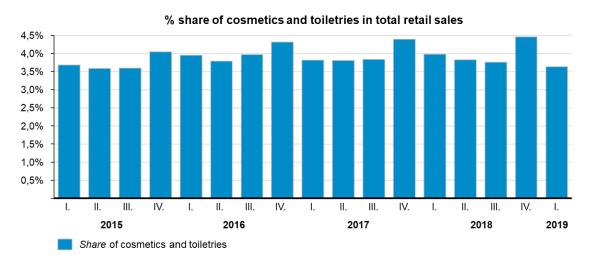


Figure 2: Share of cosmetics and toiletries in retail sales

Data on the development of the overall cosmetics and personal care market in Hungary can be found at the Hungarian Central Statistical Office. According to these data, sales of cosmetics products typically peak in the 4th quarter. From 2016 onwards, an average annual increase of 0.5 percentage points of share of the total retail market can be observed year on year.

Trends in cosmetics industry expenditure in Hungary, quarterly breakdown (million HUF) 150 000 100 000 50 000 II. III. II. IV. II. III. IV. Ш IV. ١. 2015 2016 2017 2018 2019

Figure 3: Trends in cosmetics industry spending in Hungary

The volume of the Hungarian cosmetics market has been growing between 2015 and 2018. The early 2020s, the industry tended to stagnate and then, due to high inflation, to grow again.

History and characteristics of Ilcsi Szépítő Füvek Ltd.

Quarterly expenditure (million HUF)

Foundation, traditions

There is no one in the Hungarian natural cosmetics market who does not know the name of Aunt Ilcsi. Aunty Ilcsi started her career in cosmetics in 1958, at a time when there was a general shortage of cosmetics. Her love of nature helped her to start experimenting with plant-based cosmetics. The effectiveness of the cosmetics soon made them popular with her colleagues and through them they served both the pleasure and satisfaction of her guests. In 1984, thanks to the changes in the Hungarian legal and economic environment, she and her son Ferenc Molnár founded Ilcsi Szépítő Füvek Ltd., which still operates as a traditional family business in every respect. "We share a common interest, responsibility and work, which brings us closer together as a family, so we don't see it as a burden to take part in the day-to-day operational work, development, production, management, and daily contact with professionals."

Certifications, awards

The brand's products are designed to solve problems and uniquely use live active ingredients to make your skin more beautiful and softer. In the spirit of naturalness, all Ilcsi natural cosmetics are organic, free of paraffin, parabens, synthetic colorants and thickeners, animal ingredients other than beeswax, and are not tested on animals. As the company's philosophy states, "We believe that nature has a solution for every skin problem" (Ilcsi website). Thanks to the wide range of products, today more than 100 different plants are used as raw materials. All herbs, vegetables, and fruits are sourced from their own biodynamic plantations or from carefully selected organic sources; gardens and fields, and whenever possible, from Hungarian growers.

"All our products are first and foremost the work of nature - and secondly our creation" (Ilcsi website)

In addition to naturalness, they have always paid attention to utmost quality, which is demonstrated by the numerous Hungarian and international certifications. They also cooperate with and support the Hungarian Ornithological Society (Gondola, 2013). Their strict guidelines guarantee that Ilcsi products are truly natural and reliable natural cosmetics. Hungária Öko Garancia Ltd. is a partner in the production of the products and provides the certified organic plants used in their production. In addition, the company has introduced GMP (Good Manufacturing Practice), a quality management system that covers both the development and production of its products.

The brand has also received numerous awards and recognitions, which can be found on the packaging of the products. These include the MagyarBrands and the Superbrands awards. In 2014, Ilcsi Szépítő Füvek natural cosmetics products were awarded the Hungarikum title in the health and lifestyle category (Hungarikum, 2014).

Perception of the Ilcsi brand

The management of Ilcsi Szépítő Füvek positions its brand as a premium product. As their products are predominantly sold through a cosmetician network, it is difficult for them to track the products' journey. They do not fully know their (final) target customers and therefore cannot carry out targeted marketing activities to encourage them to buy. This problem has been addressed, and profiling is underway and is being evaluated, but it is clear that customers appreciate the high quality, naturalness, and solutions that Ilcsi offers to their skin problems.

Zoltán, the company's CEO, thinks a lot about the question of how consumers will evaluate and position Ilcsi cosmetics with the emergence of new players. It is also not clear to him whether it is necessary to change or influence the consumer perception of the brand in order to expand existing market share. The launch of the webshop was a good response to expand sales opportunities and to reach a young target audience.

On one of the most popular national comparison sites specializing in cosmetics, Ilcsi received an outstandingly good response. On the website, the company's most popular products received an average of 200 reviews and scored 4.4 on a 5-point scale from reviewers.

Their top 5 products based on reviews:

- 1. Pre-event packing
- 2. Black soap
- 3. Rosehip mousse
- 4. Ichtiolos corrector
- 5. AHA biological exfoliating peeling

Figure 4: Top 5 Ilcsi products according to Krémmánia



Source: own editing

Positive consumer reviews describe the brand's cosmetics as miracle cures, bathroom essentials that "every Hungarian woman should use" (Krémmánia)

Tractive products

The initial narrow product range of 28 items has expanded rapidly over the years, and today they offer more than 200 different products (in various packaging) to beauty lovers. Most of the cosmetics are targeted at the facial care market, but they are also present in the body care and eye care markets. The products can be divided into 6 categories: cleansing, exfoliation, face and body treatment, serums, facial care, body care.

Figure 5: Full Ilcsi product portfolio available on the website

Product group	Product number
Face milks	5
Soaps	3
Tonics	8
AHA-s peelings	2
Face and body scrubs	8
Massagers	3
Cosmetic masks	12
Gels, cream gels	14
Masks	4
Serum-elixirs	14
Oils	5
Foam creams	9
Moisturizers	11
Intensive nourishing creams	5
Eye contour creams	5
Hand and foot care products	4
Body lotions	13
Other specialties	6

Source: own editing

Which cosmetic products are identified as pull products depends on the region, the country of destination and the local culture. Based on the analysis of total sales (including exports and imports), the following three products were the best-selling in the three years preceding the launch of the website:

- 1. 7 herbal wraps,
- 2. Black soap,
- 3. Fibrous lily of the valley jelly .²

Looking at the demand for products over the years, it is noticeable that, as the cosmetics market has evolved, new products have become popular and many are losing their former consumer base. In order to maintain its natural and natural character and to retain the awards/recognitions it has won in the past, Ilcsi has removed product types that can be made only with the addition of petroleum derivatives from its portfolio.

Until now, the vast majority of Ilcsi products have been used by beauticians in one-on-one treatments, but this is expected to change with the launch of a webshop, where the entire portfolio of small packs will be available for the 28 EU Member States. Observations indicate that in the period following the website launch, the demand for products that take less time to use and can even be done at home also increased. (It should be noted that beauticians sell a significant volume of products to customers in addition to the treatment.)

Operating model, financial results

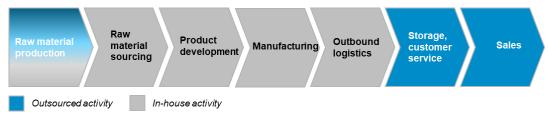
Business model

Ilcsi Szépítő Füvek operates on a business model that is considered unique in the natural cosmetics market in Hungary: its uniqueness is ensured by the fact that users access Ilcsi products through beauticians. The reason for this is that the brand's products were previously best applied by qualified professionals, thus avoiding possible skin irritations during treatment (which is basically a natural consequence of product use). Among domestic beauticians, operating as an Ilcsi cosmetician still holds prestige today, with approximately 250 such establishments currently found across the country (see Annex). The XXII Ilcsi International Congress is held every year since 1997. Furthermore, professional tours and camps are organized for interested professionals, depending on the season (e.g., an autumn tour). In addition to these programs, the brand is made more attractive to beauticians through training courses, scholarships, competitions, and other forms of support.

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² See Annex for more details

Figure 6: The value chain of the Ilcsi Szépítő Füvek



Source: own editing

Ilcsi Szépítő Füvek pays special attention to the selection of ingredients, with regard to their quality and appropriateness. Good active ingredients are the basis and value of its brand. The majority of the herbs is home-grown, supplemented by the collection and purchase of plants found in nature. Sourcing raw materials can be limited by time, as herbs may only be available for one or two months of the year. Annual planning is also a key element in the procurement of raw materials, so that only those medicinal plants are purchased for which there is a real demand, based on preliminary calculations. Ilcsi can thus guarantee that its products are always made from the freshest raw materials.

The products are developed and manufactured in-house. Production is to stock, based on a carefully defined turnover in the annual planning. The entire packaging process is managed in-house, which allows them to pay particular attention to environmental sustainability, among other things: they use a single type of plastic for the cream containers, jars, and labels, facilitating their selective recycling. (It is important to add that, like most manufacturing organizations, Ilcsi is subject to strict environmental regulations.)

The logistics and customer visit activities are outsourced to a domestic distributor, through which 95% of Ilcsi's domestic sales are channeled to cosmeticians and their clients. This distributor is one of the largest domestic players, marketing thousands of hairdressing and cosmetic products with a sales team of 20-25 people that covers the whole country. This sales team keeps in touch with local wholesalers and beauticians, gauges their needs, takes their orders, encourages them to buy, and delivers the products they buy. It should be noted that the wholesaler sells Ilcsi cosmetics only in combination with hairdressing accessories and hair care products that it distributes. The other 5% are direct sales to customers through the Ilcsi Beauty Manufactory, which serves both as a cosmetic reference salon and a brand boutique.

90% of Ilcsi cosmetics users visit their salon of choice for a specific treatment, during which they are treated with an Ilcsi product that is suitable for their skin type and needs. Clients who are satisfied with the cosmetic products applied during the treatment are likely to purchase the products from the salon for use at home.

Recently, Ilcsi has launched its webshop, which has been a great success with consumers. Through the webshop, Ilcsi can reach consumers directly, bypassing cosmeticians or wholesalers. The webshop's logistical process has been outsourced to an external partner. In addition to online shopping, they are participating in the October 2019 Glamour Days for the first time this year, which also represents an opening towards end consumers.

In addition to planning, commercial management is responsible for pricing issues, marketing activities, export and digital sales management, and cosmetic-professional relations.

Management has legitimate concerns about the integration of the new operating model into the old. It is recognized that brand loyalty for beauticians can only be maintained and secured through an appropriate stakeholder system

Different operating models in the market - competitors

The beauty industry responds instantly to the booming demand for its products. Every year, new companies appear on the market and introduce their 'wonder' products, just as Ilcsi did decades ago. Naturally, the incumbents react to this; constantly rethinking and improving their product ranges is a must to stay in the race. However, how a cosmetics company can best respond to expectations and unmet needs is different for each player, large or small. No two organizations are the same in this market. While it is difficult to impose a generalized profile on Ilcsi, we can present a number of dimensions that can be used to group potential and existing competitors.

1. Diverse sales opportunities

Similar to the Ilcsi model, several companies that do not offer (only) natural cosmetics use what can be considered a traditional distribution channel: a cosmetician network with national coverage. During cosmetic treatments, consumers can not only receive treatments using their favorite products, but they can also benefit from comprehensive consultations where they can choose the most suitable options with expert assistance. Stella and Alveola are larger companies that, like Ilcsi, supply a wide range of cosmeticians with their products, sometimes providing training in the use of the products. However, the difference is that customers can access their products through several additional channels; they can be found on the shelves of drugstores (e.g., Rossmann) and retail stores (e.g., Auchan) just as they can through a webshop.

The marketing model of some of the dominant players in the cosmetics industry, with no or only a limited range of natural cosmetics, is based on a network of consultants, Avon and Oriflame, for example. Similar to beauticians, here too, a close personal relationship with customers is very important, which is the basis of their sales strategy.

Smaller and/or family-run manufactories, especially those established in recent years, have a portfolio that is exclusively accessible via the web. Examples include PomPom and Phi cosmetics, both natural cosmetics. This business model can be a fast track to success, as evidenced by the fact that Phi entered the Prix de Beauté competition shortly after its launch, and PomPom, launched in 2016, won the dmStart! competition and was on the shelves of drugstores within a few years.

In addition to the sales options described above, some of Hélia-D and Biola's natural cosmetics are also available in pharmacies, while some L'Oréal products are now available on the e-Digital website.

2. Different operating models for natural cosmetics companies

To get a better understanding of Ilcsi's situation and the opportunities ahead, Zoltán and his team should look closer at the companies exclusively offering natural cosmetic products.

Adrienne Feller has built a real brand around herself; like Ilcsi, she has her own cosmetics training and partner network. To complement this, her cosmetics can be purchased in her ownbrand shops and via her webshop. Unlike Ilcsi, however, production is outsourced.

Internationally, it is also important to highlight the Dr. Hauschka natural products and treatments, which can be used not only in a beauty salon but also during a stay in a hotel.

Manna, one of its larger competitors, targets its customers through online advice instead of a cosmetician network. Products are on sale both in online shops and drugstores. Like Adrienne Feller, the production is performed by an external partner. Like Ilcsi, the company, which is a family-run factory, has obtained numerous certifications for its products: COSMOS, Cruelty Free, BDIH, Vegan Society. All certifications are indicated on the packaging.

Revenue per employee (thousand HUF) 10 000 20 000 30 000 40 000 Helia-D 35 128 Dr Hauschka 31 342 24 369 Ilcsi Manna 18 623 Adrienne Feller 16 971 **PomPom** 16 695 13 825 Magister products Phi cometics 12 005 Yamuna 11 514 Revenue per employee (thousand HUF)

Figure 7: Revenue per employee³ - Ilcsi and potential natural cosmetics competitors

Source: own editing based on the data of e-beszámoló

Furthermore, mention should be made of the numerous small family businesses and manufactories that comprise a large part of the natural cosmetics market, such as Magister products, created by a family of pharmacists, or Yamuna, which has grown from a home soap-making business into a manufactory. Both companies produce their own natural cosmetics from controlled raw materials, operate a sample shop and a webshop, and possess a significant cosmetics network, which they are striving to expand. As Ilchi has done, they have the potential to move from home production to large-scale production and become a major player in a fragmented market.

-

³Turnover per employee = Net sales for the year / Number of employees in the year

Looking at the turnover and headcount of the potential competitors listed, Ilcsi is among the leaders in the domestic natural cosmetics market. The evolution of turnover per employee for each market player is shown in Figure 7. This indicator shows the operational efficiency and the completeness of the product portfolio. However, it is important to underline that the operating model chosen by firms has a strong impact on the amount of revenue per employee: different practices make financial comparisons difficult.

Financial data

The company's management was not worried in previous years either, as their sales and profits have been on an upward trend. In 2017, they achieved exceptionally good results compared to other years, with sales up 26% compared to 2016 (e-Report). Foreign customers, especially Chinese, have shown a strong interest in the gel creams, which, in addition to their moisturizing effect, also make the skin whiter - much to the delight of Asian consumers.

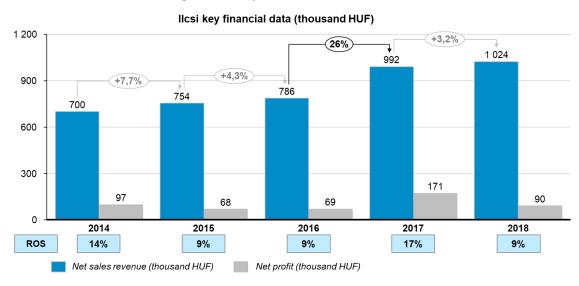


Figure 8: Key financial data for Ilcsi

Source: own editing based on the data of e-beszámoló

Further examination of the accounts reveals that operating profit as a percentage of sales (ROS) jumped to 17% in 2017, but in 2018 it fell back to the level of previous years. The operating profit as well as the ROS ratio would be positively impacted by a rethink of the cost structure, which is on the agenda for the next period, but only after the revenue target is reached.

It is difficult to make accurate growth forecasts for the domestic natural cosmetics market. Still, based on their historical sales performance, Zoltán and his team believe that Ilcsi's future position is secure. However, the management is not just looking to maintain the status quo: it wants to increase Ilcsi's market share in the domestic cosmetics market by exploring new opportunities.

Posted on

Zoltán and his team are facing a big challenge: using their existing capacities, they plan to double the company's turnover in the coming years, thus further strengthening its position in the domestic market. They believe that there is no internal (capacity) limit to increasing production, and that their production facility and their dedicated colleagues are up to the task. The necessary investments have been made over the past years. The management believes that it is necessary to focus and prepare for the domestic market and its challenges.

Last month, Ilcsi launched a webshop offering its full product portfolio, which is of great importance for the company as this allows for much wider direct access to customers. Zoltán and his team expect that the increased sales opportunities will also make it easier to assess market needs and incorporate them into the product range in the future. The management's aim is to avoid cannibalization between different sales channels; it strives to increase sales and market share by exploiting synergies.

Management would like to see a **full picture of** the challenges and opportunities that lie ahead.

- How should Ilcsi change its business model to achieve the targeted (revenue) growth? For which change management tools should the management opt to ensure that the interests of all stakeholders are not harmed?
- Following the opening up to the retail market, what external market changes (e.g., competition) and internal operational changes (e.g., processes, responsibilities) can the management expect?
- Is it necessary to reposition the brand after entering the retail market? Is it worth changing the company's current image/marketing activities?

Annexes

Annex 1: Classification of cosmetics by use

	Cosmetics									
Skincare	Bodycare	Perfume	Decorative Cosmetics	Haircare	Sun Protection	Oral Care				
Cleansing Head	Oil	After Shave	Foundation	Shampoo	Gel	Lip Balm				
Face Mask	Soap	Perfume	Powder	Conditioner	Oil	Mouthwash				
Shaving Cream	Antiperspirant	Scented Oil	Lipstick and Lip Gloss	Sp	Spray					
Serum	Body Spray	Balm	Lip and Eye Contour	Care Milk	Sunscreen					
Exfoliator	Shower Gel		Nail Polish	Hair Dye	Sun Cream					
Moisturizer and Anti-Aging Cream	Body Lotion		Blush	Anti-Dandruff						
Toner	Body Scrub		Mascara	Hair Mousse						
Eye Cream			Eyeshadow	Hair Texture Improver						
Moisturizer				Serum						

Source: own editing

Annex 2: Top 30 products in relation to each other 2017-2019YTD, based on turnover



Source: Ilcsi internal material

Annex 3: Ilcsi Beauty Manufactory



Source: Szépségmanufaktúra, 2019

Annex 4: Ilcsi cosmetics all over the country



Source: Ilcsi, 2019

Annex 5: International Ilcsi Congress, Hungarikum, 2014



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Business model innovation at Polmedica Health: Focus on proactive medicine

Dóra Horváth

The Polmedica Health private clinic started its operations in Poland in the 2000s. The clinic provides high quality, complex healthcare through its 50 specialist clinics and ultramodern surgical center. However, in a changing environment, the clinic's management recognized the need to expand its services. To this end, the clinic is planning to develop a longevity clinical center focused on preventive and proactive healthcare, bringing a major shift in its business model. This new business will aim to capitalize on new trends in preventive medicine, with a focus on early detection and prevention of disease to improve overall health and quality of life.

The current business model

The current business model of Polmedica Health clinic focuses on traditional healthcare services. Patients typically visit the clinic when they experience a health problem that requires accurate diagnosis and treatment. This approach is effective in treating acute and chronic conditions but lacks a proactive component that could prevent disease and improve long-term health outcomes. Also, common patients are employees who participate in corporate screening packages and who typically take up the clinic's general screening packages on an annual basis.

As health care shifts towards prevention and wellness, the clinic sees an opportunity to expand its services to preventive medicine and thus be at the forefront of an emerging trend. The clinic's aim is to create a new longevity center, while retaining existing traditional healthcare services, to gain a significant first-mover advantage and client base in Poland and in the region.

The reasons behind business model innovation: market trends in preventive medicine

Preventive medicine is gaining increasing attention today because of its potential to reduce the burden of chronic diseases and improve overall quality of life. As the health sector evolves, there is a growing emphasis on preventing disease rather than merely treating it. In the future, it will become increasingly important to integrate the 4P approach (predictive, preventive, personalized, participatory) into healthcare, replacing the disease-centered traditional healthcare. Advances in medical technologies, such as more sophisticated diagnostic tools, genetic testing, personalized therapies, advanced imaging techniques (e.g. AI-enhanced MRI and CT) and wearable health devices, allow for the assessment of risk of health problems, early detection and monitoring of diseases. All these solutions, along with a deeper understanding of genetic and lifestyle factors, enable more targeted and personalized interventions, helping

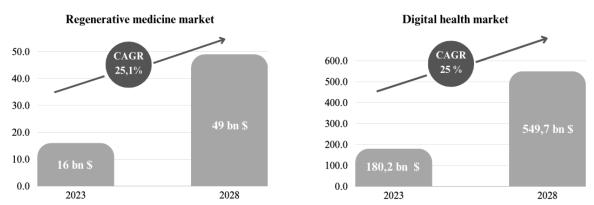
individuals to manage or even prevent chronic diseases. This proactive approach can not only improve individual health but also promises to alleviate long-term pressures on health systems.

Consumers are also emerging as a major driver in the market as people become more health and wellness conscious, fueled by better access to information and a cultural shift towards healthier lifestyles. This increased awareness is transforming the way patients approach their health, making them more informed and proactive. They no longer seek care focused only on traditional disease management but services that offer holistic, preventive strategies. This trend is driven by the desire for better quality of life and longevity, and patients are actively seeking information on nutrition, exercise, mental well-being and preventive health measures. As a result, healthcare providers are increasingly expected to offer comprehensive preventive health programs that meet these diverse needs, integrating traditional medical care with lifestyle and proactive health approaches.

Preventive care also has significant economic benefits, potentially reducing the need for costly treatments for advanced diseases. By focusing on the early identification and proactive management of health risks, preventive measures can reduce the incidence and severity of chronic conditions that often require expensive and long-term treatment. This cost-saving opportunity is becoming increasingly attractive to healthcare providers and insurers seeking to manage healthcare spending more effectively. As a result, there is a growing emphasis on integrating preventive care into healthcare models, not only to improve patient outcomes but also to create a more sustainable and cost-effective healthcare system.

While the size of the longevity-focused preventive healthcare market is difficult to define as it can be described as an intersection of several areas, both the global regenerative medicine and digital health markets are poised for significant growth and forecast growth opportunities for the area under study (Figure 1).

Figure 1: Expected growth in the regenerative medicine and digital health market



Source: own editing based on Markets and Markets (2024)

Planned services of the clinic

Comprehensive health assessments: comprehensive health assessments are the first step of the planned services, where the clinic can get a complete picture of the patients' health status and lifestyle habits. The planned assessments and tests are an integral part of preventive health care, using advanced diagnostic methods such as genetic testing and lifestyle analysis to identify the risk of chronic diseases and other health problems. By using these cutting-edge technologies, healthcare providers can gain a detailed picture of an individual's health profile and identify potential risk factors that may not be apparent through traditional medical assessments.

Examples of planned medical tests:

- **Diagnostic imaging:** full body MRI with artificial intelligence analysis, coronary CT angiography, low dose lung CT with artificial intelligence analysis, bone density and body composition tests, electrocardiogram.
- **Genetics and biomarkers:** Early cancer detection blood test, genetic testing, comprehensive blood biomarker panel.

Function and performance: neurocognitive function test, blood pressure, balance, stability, coordination test, grip strength test.

Personalized health plans: following the completion of comprehensive health assessments, personalized health plans are developed, with recommendations on key areas such as diet, exercise, stress management and other lifestyle changes. These plans are designed to address the health risks identified in the health assessments and promote overall well-being, offering patients a clear roadmap to achieve and maintain optimal health.

Ongoing monitoring and support: in addition to the development of personalized health plans, ongoing monitoring and support is essential to ensure that patients adhere to the recommended health strategies and receive continuous feedback from the clinic's experts. This includes regular medical follow-ups, check-ups and the use of wearable devices that can measure key health indicators and provide real-time data to help adjust the plans as needed. Telemedicine consultations also play an important role in this ongoing support system, allowing clients to receive guidance and feedback from health professionals without a face-to-face visit.

Education programs: as a complement to health interventions, the clinic aims to develop educational programs that help patients to learn the knowledge and practical skills needed to maintain a healthy lifestyle and gain insight into the short and long-term impact that poor lifestyle choices can have on their health. These programs include workshops and seminars on topics such as nutrition, exercise, mental well-being and stress management. With this comprehensive approach - which combines in-depth assessments, personalized plans, ongoing monitoring and educational resources - health care providers can equip clients with the tools and support they need to live healthier, more proactive lives.

Planned packages

HealthSnapshot package: the package covers a narrower segment of diagnostic solutions and is aimed at patients who are in contact with a doctor who can evaluate the results of tests performed by the clinic and, based on the results, develop a health and lifestyle optimization plan for the patient. This package is aimed at those who are interested in their immediate health and want to determine their risk of diseases affecting their cardiac, metabolic or neurocognitive functions. The HealthSnapshot package is designed for patients who want to optimize their health but are not yet ready for a "*Lifelong Vitality*" membership program.

Lifelong Vitality Package: the package is aimed at clients who want access to the most advanced comprehensive testing and the clinic's team of lifestyle doctors, who use their extensive expertise to interpret results and develop plans to improve and optimize patients' health. In addition to early detection of disease, the program aims to provide access to educational content, health coaching and therapies that can improve their vitality and health. The package is not a one-off offer, but a lifelong lifestyle program to be renewed annually. The initial assessment helps to establish the patient's baseline condition and to treat any identified illnesses. Subsequent annual visits and ongoing assessments focus on optimizing health status. Overall, the package is a year-round program that combines comprehensive diagnostics, long-term remediation and therapy, enabling patients to maximize their performance and health.

The dedicated team of healthcare professionals for patients who use the package includes:

- Lifestyle doctor
- Dietician
- Health coach
- Patient coordinator

Polmedica Health also intends to develop a dedicated mobile app to help patients understand the results of the health assessment and the impact on their body and overall well-being. This user-friendly app provides detailed explanations of test results and translates complex medical language into easy-to-understand information. The app includes interactive graphs and visualizations that illustrate how different health metrics such as blood pressure, cholesterol levels and genetic markers affect chronic disease risk. In addition, the app offers personalized recommendations based on a patient's individual health profile and provides guidance on steps to improve their health and prevent future problems. With integrated reminders and tracking tools, customers can monitor their progress, making informed decisions about their health every step of the way.

Closing thoughts

Polmedica Health's strategic expansion in preventive medicine, with the establishment of a clinical center promoting longevity, represents a forward-looking approach in an evolving healthcare environment. By integrating advanced diagnostics, personalized health plans and ongoing patient support, the clinic aims not only to improve individual health outcomes, but also to lead the region in proactive healthcare. By embracing technological advances and responding to growing consumer demand for holistic healthcare services, Polmedica Health is poised to significantly improve its value proposition and market position.

However, the shift to a preventive care model presents both opportunities and challenges. Success depends on effective implementation, organizational adaptation, patient engagement and the ability to adapt to new innovations and market needs. By understanding and addressing the factors influencing digital transformation, clinicians can overcome initial barriers and reap the benefits of preventive healthcare.

By focusing on comprehensive, personalized and preventive healthcare services in the future, Polmedica Health will not only improve patient well-being but also strengthen its role as a key healthcare institution. This innovative approach is likely to encourage other clinics to follow suit, ultimately contributing to a wider shift towards a healthier, more informed and proactive society.

Savaria Engineering – Strategic Renewal, Family Governance, and Succession Consolidation

Attila Wieszt, Rita Tóth, Anna Ránky

Introduction

In the fall of 2022, Péter Kovách sat in the office of Savaria Engineering, reflecting on the latest developments within the company. As the newly appointed CEO of his father's business, Péter was eager to lead the family enterprise into a new era, though he also felt the weight of the responsibility. Savaria Engineering had grown from a small-town workshop into one of the region's leading industrial manufacturers, a success owed to three decades of work by Péter's father, István. Now, as Péter and his siblings stepped forward as leaders and owners of the next generation, they faced several challenges: how to achieve sustainable growth through structured strategic planning, how to establish effective family governance bodies, and how to finalize the succession process to solidify their roles within the company.

Péter understood that these challenges would test not only his business acumen but also his ability to balance family dynamics, navigate changes in leadership roles, and honor longstanding loyalties. His father, István, still maintained a strong presence in the company as Chairman of the Supervisory Board, a position that kept him involved in overseeing the company's operations and strategic planning at the highest level. Péter often felt that this dynamic occasionally led his father to question his leadership decisions with his assertive contributions. The situation was further complicated by his brother, Ferenc, whose commitment to the company appeared limited to his role as an engineer, and his sister, Júlia, who was uncertain about her place in the family business. Péter also found that operating the Family Council—newly established in part through the family constitution to unify family governance—posed increasing challenges for the family.

Feeling the weight of the Kovách legacy, Péter pondered how to strike a balance between these roles, foster cohesion, and guide the company toward sustainable growth and professionalization.

Background and Evolution of Savaria Engineering

Savaria Engineering was established in 1993 in a major Hungarian city, shortly after Hungary transitioned to a market economy. István Kovách, who was then a senior engineer at a large state-owned company, founded the business with a former colleague after their workplace was dissolved. Leveraging his engineering expertise and entrepreneurial spirit, István purchased an unused workshop on the outskirts of the city, launching and growing Savaria Engineering. Initially, the company primarily served Hungarian and a few European automotive clients, but with Hungary's accession to the European Union, Savaria Engineering's client base expanded

across Europe. Today, the company employs over 550 people, generates annual revenues of 35 billion HUF, and is recognized as a key player in the regional economy. In 2013, the company transitioned from a limited liability company to a joint-stock company, signaling its growth and maturity in the market.

Over the years, Savaria Engineering has become more than just a family business. István and his wife, Mária, raised three children—Péter, Ferenc, and Júlia—each with distinct skills and personal aspirations. Péter, the eldest, a trained economist, had always been designated as István's successor, a role Péter gradually embraced. Ferenc, a mechanical engineer, works as the leader of a small development team, though his personal interests appear more focused on technical challenges and innovations than on the company's growth or broader organizational commitment. Júlia, the youngest sibling, recently graduated with a law degree but is uncertain about whether to join the family business full-time—she feels distanced from the family succession plan due to her age and gender.

In 2022, the family formally established its governance framework through a family constitution—a two-year process that defined roles and laid the principles for ownership and governance. This constitution created two main bodies: the Family Council, composed of family members actively involved in the company, and the Family Forum, designed for broader communication and engagement with all family members connected to the company. For years, Mária had overseen the Family Forum's operations as the invisible force that held this group together. However, she is now seeking support and a successor for this responsibility. Mária exhibited a natural talent for uniting the family within a business context and recognized that her daughter Júlia was undergoing a sensitive internal maturation process requiring significant decisions. Mária hoped Júlia would find her place, just as she herself had, fully aware that her siblings would play crucial roles in shaping Júlia's journey.

Amid these transitions, István gradually stepped back from daily operations, paving the way for the next generation to assume leadership not only in management but also in full ownership of the company.

A Family Council Meeting: A New Era, New Tensions

At one of the first Family Council meetings, Péter found himself navigating tensions and conflicts. The Council convened in the company's boardroom, with its members seated in upholstered chairs around a large oak table—deliberately separating the discussion of family matters from the informal, kitchen-table conversations that had previously characterized their family decision-making. This formality was part of the new structure of family governance, designed to distinguish family issues from business concerns.

Despite the formal environment, old habits persisted. While everyone understood and acknowledged the importance of the Council, they covertly resisted the unfamiliar dynamics of the new setting. Finding a mutually convenient time was difficult, and many felt the meetings were forced compared to the informal discussions they had grown accustomed to. They were uncomfortable with the openness and deliberateness required to manage decisions and the associated tensions.

The meeting's topic was the strategic planning report prepared by Péter, outlining a formalized approach to planning aligned with the company's new growth objectives. As Péter presented his ideas, he sensed both enthusiasm and tension in the room. Ferenc, flipping through his notes, occasionally sighed or raised his eyebrows, seemingly skeptical. To Péter, his brother's body language conveyed indifference to the ambitious goals of the plan. When Péter finished and asked for feedback, Ferenc was the first to speak.

"Look, Péter, all this talk about strategic growth and modernization—fine, but do we really need to transform a company that's been doing well without it?" Ferenc asked bluntly, almost dismissively. "I've been here as long as you, and things have worked fine so far. I don't see the need for all this new strategic planning when we can just stick with what Dad always did. Why reinvent the wheel?"

Frustration welled up in Péter. While he had anticipated some resistance from Ferenc, he wasn't fully prepared for such a direct objection.

Before Péter could respond, István interjected from the head of the table. "Ferenc has a point, Péter," István said thoughtfully. "Things have worked well with a more intuitive approach. People in the company always seemed to know where we were headed. At the same time, I understand that times are changing. Péter, what do you believe this new planning approach will change?"

This exchange highlighted one of the central questions facing the family: how to adapt to increasingly professional corporate structures without losing the family resources and capabilities that had served the company well so far. Péter, striving to balance respect for his father's legacy with asserting his own leadership role, began to explain the need for sustainable planning that extended beyond the current business cycles. He also knew that securing the family's support, particularly in light of István's influence and Ferenc's indifference, would require careful negotiation.

A sudden wave of uncertainty swept over Péter as memories of cheerful Sunday family dinners flashed through his mind—times when such discussions unfolded effortlessly. For a moment, all the formality seemed pointless, especially given the tension between him and his brother. But then he remembered that even those informal settings had their challenges, with drawbacks that were no longer sustainable for a company of this scale.

Finally, Júlia, the youngest sibling, spoke up, expressing tentative support for Péter's ideas. "I think Péter is right; we need a forward-looking plan for strategic planning. But perhaps we need more clarity on how these changes will impact us personally. Where do we fit into this new structure?" she asked, her question freezing the air in the room. With this, she drew attention to an unspoken tension—not just around the strategic plan itself but also regarding the uncertainty of the siblings' roles and contributions in this newly formalized family business.

Key Challenges

1. Strategic Renewal and Professionalization

With Savaria Engineering's rapid growth, Péter recognized the need for a formalized strategic planning process. Before Péter became CEO, strategic priorities were typically derived during budget planning sessions, based on István's target figures and his reactions to investment ideas and informal feedback. The new process, however, would require explicit goals, concrete implementation plans, and reliable data. The Family Council, now the primary forum for ownership issues, needed regular and accurate reports as well as a well-defined strategic framework to make unified, long-term decisions.

For the non-family management team, this change represented a significant shift in expectations. Previously, they had relied on István's formal briefings and informal hallway or private conversations to infer strategic directions. Now, they were required to produce structured, predefined reports aligned with the Family Council's objectives. Péter and the Council had to ensure that non-family managers adapted to these new requirements and fully supported the structured and transparent strategic planning process. This process was essential for other professionalization initiatives critical to the company's growth, such as further developing the controlling system, implementing organizational changes tied to strategic renewal, and enhancing HR practices.

Péter also understood that the reverse approach would not work: introducing any new professionalization initiatives too quickly, without a solid strategic framework, could lead to operational disruptions and alienate long-standing employees.

2. Establishing Functional Family Governance

The Family Council and Family Forum, while promising tools for ownership governance, still faced practical challenges. Although these governance structures had recently been formalized, family members were accustomed to informal gatherings where both business and family matters were discussed without formal agendas or decision-making frameworks. Péter and his siblings, as members of the Family Council, needed to collaborate to ensure that Council meetings focused on the relationship between the family and the company, such as articulating ownership strategic preferences, and to prevent the Council from evolving into a quasi-management body.

Maintaining this boundary required commitment and awareness of formal meeting practices and would entail a long, shared learning process among participating family members to adapt to the new framework for cooperation and collaboration. Both in their communication with one another and internally, they would need to develop skills for fulfilling their defined new roles within the Council, consciously transitioning between their roles as corporate employees and Council members, preparing and adhering to structured agendas, and clearly delineating topics related to strategic ownership from those concerning operational management. Péter understood that allowing operational decisions to be discussed within the Council could undermine the existence and functionality of corporate leadership meetings for both family and non-family executives. To preserve the Council's efficiency and independence, family members needed to

balance their ownership and business roles while respecting the Council's role as a strategic governance entity rather than a management forum.

Operating the Family Forum appeared easier since it already had a precedent: the extended family, including in-laws, regularly gathered for shared activities. However, the Forum's organization fell primarily to family members not involved in the company: Péter's mother, Mária, as well as Viktória, his wife, and Eszter, his brother's wife. The activities and discussions within the Forum could naturally help prepare for Family Council decisions. Questions arose about what agendas would be necessary for the Forum and how these should be introduced, given that participants often focused more on each other, the children, and the programs themselves. Should Péter coordinate on possible topics and formats, or allow his mother and the wives to grow into this role and determine what was needed on their own?

3. Succession Consolidation and Role Stabilization

With Péter's appointment as CEO, he and his siblings entered the final phase of the succession process. Although the roles of family members within the company and as owners had been formally defined—thanks in part to the extensive discussions and joint decisions made during the drafting of the family constitution with the guidance of advisors—Péter and Ferenc still needed to consolidate their new positions in the company's leadership following the transition. Péter, responsible for the strategic vision of the company, had to assess whether Ferenc's attitude and actual contributions as a development engineer and leader of the development team aligned with the company's long-term goals, or if it would be necessary for Ferenc to take on a more committed role as an operational executive. A key question was how the brothers could effectively collaborate both as owners and as employees within the company hierarchy. Their sister, Júlia, remained ambivalent about her future role in the family business. While open to the possibility, she also faced significant uncertainties regarding her potential involvement.

István's gradual retreat from management posed additional challenges. Although he had stepped back from day-to-day operations, he remained active on the Family Council and Supervisory Board, and he continued to explore new business ideas. His interest in establishing a specialized research division for Savaria Engineering, along with his intention to invest family and corporate financial resources into new projects and ventures, could potentially create tension between his personal ambitions and the family's expectations. Mária, István's wife, encouraged him to spend more time with the family and grandchildren, hoping he would find fulfillment outside the company. How István managed this new phase of his life would likely impact the unity of the family and the stability of the governance structures they had established.

Decision Points and Discussion Questions

1. Establishing Strategic Planning: What strategies could Péter employ to develop and implement a formalized strategic planning process that maintains alignment between family owners and non-family executives? How should he manage and involve family executives in the change process, and how should he approach non-family executives to ensure their engagement and support?

- **2.** Enabling Effective Family Governance: How could the formally established governance structures—the Family Council and Family Forum—be effectively operated in a way that focuses on the relationship between the family and the business, rather than on daily operational activities? What practices and protocols could strengthen the Council's functioning and prevent it from becoming a management forum?
- *3. Supporting István's Transition:* How can the family, whether through the Family Council or other means, support István in transitioning from his role as company leader into a new phase of life, balancing his interest in new projects with family priorities and cohesion?
- **4.** Succession Stabilization and Sibling Collaboration: What steps can Péter and his siblings take to solidify their roles as leaders and owners, ensuring that their collaboration aligns with both family and business objectives? How can they clarify and support Júlia's potential future role within the company?
- 5. Implementing Broader Professionalization Initiatives: Beyond establishing a strategic planning process, what other areas of professionalization—such as further development of the controlling system or the HRM system—should be prioritized to support Savaria Engineering's growth? How can Péter and the Family Council approach these initiatives to build a cohesive and well-aligned organization, while preserving the company's core family values?

Hello and welcome to the VibeWear team!

Vanda Harmat

With over 500 employees, VibeWear is a world-renowned, Madrid-based fashion conglomerate founded in 2000. VibeWear's mission is to contribute to the individual style of its customers through unique, quality products. The company's main profile is streetwear products. The company opened its online store in 2015, which has been a great success since its inception. In 2022, thanks to the rise of digital fashion, the company decided to introduce digital fitting rooms, livestream shopping, and collaboration projects with virtual fashion influencers such as @lilmiquela and @magazineluiza. VibeWear also set out to automate internal communication within the organization and started to explore the technologies that could be used (summarized by the project team in Annex 1).

Considering that VibeWear hires many new employees in its physical stores before its annual seasonal promotions and that training them requires a lot of human resources, the management was looking for a solution to speed up the hiring and training process. The board was convinced by information they had read about the chatbot Talla. The team responsible for the project found the onboarding chatbot Talla on the HR LINEUP website, which introduced the chatbot as follows: Talla is an innovative software company that specializes in the development of intelligent automation and knowledge management solutions. With a focus on empowering businesses to streamline their operations and enhance their productivity, Talla leverages the power of artificial intelligence (AI) to automate routine tasks and facilitate the management of organizational knowledge. At the core of Talla's offerings is its cutting-edge AI-powered chatbot, which serves as a virtual assistant capable of understanding and responding to user queries and requests. This chatbot is designed to provide accurate and timely information, perform various tasks, and guide users through complex processes. By automating repetitive tasks and handling routine inquiries, the Talla chatbot enables employees to focus on highervalue activities, leading to increased efficiency and improved customer satisfaction. Talla's platform incorporates advanced natural language processing (NLP) algorithms that allow the chatbot to comprehend and interpret user inputs with a high degree of accuracy. The chatbot continuously learns and improves over time, thanks to machine learning techniques that enable it to adapt to new information and user patterns. This ensures that the system remains up-todate and relevant, providing users with accurate and up-to-the-minute answers. In addition to its chatbot capabilities, Talla offers a comprehensive knowledge base system that enables organizations to capture, store, and organize their internal knowledge effectively. The platform allows users to create and manage articles, documents, FAQs, and other forms of knowledge resources, making it easy to share information across teams and departments. The system also features robust search functionality, ensuring that users can quickly locate the information they need, reducing the time spent on searching for answers and promoting collaboration among employees. Talla's solutions are particularly beneficial for organizations dealing with large volumes of information, complex workflows, and frequent customer interactions. By automating

repetitive tasks, reducing response times, and improving the accuracy of information delivered, Talla helps businesses enhance their operational efficiency, increase customer satisfaction, and reduce costs. Furthermore, Talla provides valuable analytics and insights into user interactions, allowing organizations to gain a deeper understanding of their internal processes and customer needs. These insights enable companies to make data-driven decisions, optimize their operations, and identify areas for improvement. Overall, Talla's AI-powered automation and knowledge management solutions offer businesses a powerful toolset to streamline operations, improve productivity, and deliver exceptional customer experiences. By leveraging the capabilities of AI and machine learning, Talla empowers organizations to unlock the full potential of their knowledge assets and leverage them for strategic advantage in today's rapidly evolving digital landscape." (hrlineup.com/talla/)

As it is of paramount importance to the company that new employees receive a warm welcome during the onboarding process, the company's HR manager was concerned that the chatbot's emotionless communication would alienate employees. The project team tried to convince the HR manager to implement the chatbot by telling ChatGPT that Talla was very nice and helpful, as illustrated by the welcome message he sent to the new employees:

Hello and welcome to the VibeWear team! 🧚

We're thrilled to have you join us. My name is Talla, and I'm here to assist you throughout the onboarding process, answer any questions you may have, and ensure you have all the information you need. Before we get started, here's a brief overview of what you can achieve with my help:

- Guidance on understanding company policies and procedures
- Assistance with accessing training materials and resources
- Information about workplace tools and systems
- Quick answers to any questions you may have.

How would you like to begin? Would you prefer a quick overview of the most important things you need to know, or do you have a specific question? Please choose from the following options:

- Company policies and guidelines
- Training materials and procedures
- Administrative processes
- Any other questions.

If you get stuck at any point, just let me know, and I'll be here to help!

After long discussions, the company finally decided to buy Talla and automate the onboarding process. In May 2024, the regional managers presented the company's objectives for the introduction of the HR chatbot to the managers, which included the integration of new employees hired for the summer layoff period scheduled for the end of June, with Talla as a pilot. At the beginning of July, the HR chatbot implementation team conducted an internal

survey on employee acceptance of the virtual assistant; the results of the survey were presented to managers:

Some quotes from interviews with shop workers:

"I don't know how it would be different from the intranet ..." (Zsolt)

"I would definitely not go to the training where they show you how the system works." (Eva)

"This implicitly means that they are laying us off." (Edina)

"Basically, I really liked it when a new colleague came in because I could spend the whole day with her, and I didn't have to talk to customers. Now that's not going to happen. It makes me sick." (Léna)

Some extracts from interviews with new entrants:

"Whenever I wrote to Talla, she replied immediately and kindly, but on my first day at work my colleagues ... never mind!" (Kitti)

"I was looking forward to talking to humans!" (Peter)

"On my first day, I was very nervous and hoped to get help from my colleagues, but I noticed that they were talking about me behind my back when I was putting the clothes on the rack. That made me even more scared for the second day." (Réka)

"I thought my manager would talk to me like Talla." (Kata)

Listening to the results of the survey, the HR manager suggested that it would be worth involving the company's internal organizational developer "because the problems go beyond the chatbot".

After the first month of implementation, the onboarding automation team reviewed users' interactions with the chatbot, which are stored anonymously by Talla. The most common search keywords used by new users are shown in Table 1.

Table 1: Report - June 2024

1.	breaks
2.	payment of salaries
3.	cafeteria
4.	industrial physician
5.	probationary period
6.	organizational policies
7.	training module I
8.	lunch break

9. employee loan	
10. family benefits	
23. hairdresser	

Source: own editing

When analyzing the report, the development team paid most attention to the keyword "hairdresser", so they retrieved the dialogues in which this phrase appeared. It turned out that some of the new entrants were trying to use the onboarding chatbot like a Google search engine. The team also noticed that several users were asking the chatbot personal questions including "where were you born", "what are your hobbies" or "what color are your eyes". However, Talla gave a different answer to each of these questions.

After the first phase of training new employees, which was also done through the onboarding chatbot, the development team again conducted interviews with store employees and employees who joined in June about their perception of the chatbot's effectiveness:

Some quotes from interviews with shop workers:

"You see the data, don't you? We've been under surveillance ..." (Eva)

"I told you that it's not going to be any better than the intranet. Nobody reads that either." (Zsolt)

"I found that watching videos about the layout of the shop floor did not help at all to enable new colleagues to do their work independently" (Léna)

Some quotes from interviews with new entrants:

"I still use it daily; it can answer all my work-related questions quickly." (Kitti)

"Well ... it hasn't got any better. I still get a lot of criticism for my work." (Réka)

"I admit that I just skip the modules. I want to learn from my colleagues, I came here because I heard that the atmosphere is good." (Peter)

Listening to the results of the second survey, the managers expressed the need for urgent intervention; the project has so far been unsuccessful. What should the development team do? Why?

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Annexes

Annex 1. Advantages and disadvantages of corporate internal communication channels

Communication channel	Advantages	Disadvantages
Employee applications	It requires little effortfrom the workersFast	 Users are lost among the numerous applications The introduction is time-consuming
Circular emails	FastUp to dateIt reaches a largeaudience	 One-way communication Many employees don't evenopen certain emails Retrieving them is time-consuming
Chat	It ensures the exchange of information betweenemployees who are far apart	 Time differences betweenmessage exchanges It does not allow organization-level communication
Video	 Cost-efficient You can send a videomessage without using other software 	 One-way communication,no feedback provided Employees' watching longervideos is unlikely
Audio recordings, podcasts	 They can be listened towhile pursuing otheractivities Authenticity is stronger than in the case of a written text 	 One-way communication It does not gain the full attention of the employee
Intranet	Up-to-date informationAllows for two-way communication	 In remote work or while traveling, an employee doesnot access the information In the absence of constant updating, employees will stop using it

Digital content provider systems	 Information published on external devices, strengthening identity Visible without using a computer 	 Improper design is counterproductive The news displayed requiresconstant updating
Chatbot	 Available anytime, anywhere Low costs Fast Stores employees search history 	 No results will be found if the keyword is not known It does not understandcomplex questions The interaction is not humanlike Requires continuous improvement

Source: Harmat (2022, p.18.) based on Sinclair (2021)

ESSAYS

Agile controlling

István Radó

The controlling organization must become agile – this is the biggest challenge for financial professionals in the last 30 years.

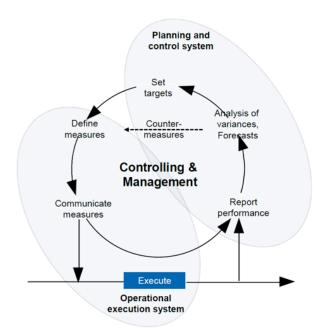
There is something that has already begun in every controlling organization, even if they may not yet be aware of it. In the current environment, every company is forced to adapt quickly and flexibly to changes, meaning they must become agile. This is why the journey toward agile operations has already started everywhere, and it also affects controlling organizations.

However, this transformation involves many conflicts because many organizations today still operate with the century-old plan-control model. Managers instruct employees to perform tasks and perform direct monitoring, identifying deviations and taking corrective action. Mostly repetitive and routine tasks are performed by functional units with deep expertise. This old model strives to create a perfect system through thoughtful planning and continuous control that guarantees stability and lasting success for stakeholders.

But in this increasingly chaotic world, there is no perfect system, because the wheels of change are turning faster and faster. In pyramid-like hierarchical organizations, no matter how much we try to plan better, forecast more accurately, manage risks more thoughtfully, or use diverse methods of empowerment, we see that adaptation remains only local and temporary due to continuous conflicts. That is why organizational agility has been a topic of literature since the 1990s, and it is based on four pillars: responsiveness, adaptability, flexibility, and customer focus.

We know at least 50 different agile approaches, so it matters greatly which ones are spreading the fastest in controlling practice. Corporate examples show that the question of which agile approach is needed has not yet been answered, controlling is based on several methods, such as kanban, holacracy and OKR (Objectives & Key Results). Holistic Agile methods, including design thinking, scaled agile network and hoshin kanri, are spreading rapidly, while in the development of controlling software and reports, Scrum and Kanban are leading the way.

Figure 1: Elements of organizational agility in controlling



For controllers, this development has three requirements:

- As management partners, they must be familiar with agile methods and their connection to the controlling system.
- They become responsible for the agile operation of the controlling system.
- Agile controlling is not enough if the company is slow, unable or unwilling to react. Execution must also be made agile.

Source: International Group of Controlling (IGC) / Klaus Möller (eds.): Controlling & Agility, 2022, page 53

What does agility mean for controlling? Let's look at some examples! These were collected by the International Group of Controlling (IGC) in their study Controlling & Agility¹, which in itself shows the importance of the topic.

Examples of Agile Controlling

A1 Telekom Austria

Due to the rapidly changing business environment, the demand for the internal services of the controlling organization at A1 Telekom Austria (hereinafter referred to as A1) has increased, and these services also had to be improved. At the same time, this was expected at lower costs, which meant a reduction in staff. They could therefore no longer work in the previous way.

Process-based organizations with a customer focus had already been set up in other areas of A1. Based on this, a transformation project was launched in controlling. The aim was to create a sustainable organization that could continuously and dynamically adapt to changing conditions in a self-organizing manner. They did not know what level of agility they needed, but they quickly realized that they should not aim for the highest possible level, but for just the right level.

First, a team of volunteers with different experiences and competencies was set up, and an HR specialist was also involved. In the new organization, controllers had to fill roles that the situation required. Employees had to be able to play multiple roles, and these roles were

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¹ https://www.igc-controlling.org/fileadmin/pdf/IGC_Controlling___Agility_May_2022.pdf

grouped into so-called Circles. The Circles are regularly redefined to suit changing circumstances.

People Controllers play the role that is needed in a given situation. An employee has multiple Lead **Employees** roles at the same time. The complementary roles form a circle. **Execution Lead** Execution Automation & Lead Profitability Digitalization Execution Lead Planning **Execution Lead** & Financial **Data Analytics** Results **Fransformation Products** The teams work closely together. They decide independently when to involve other teams in the process. This **Business Unit** integration is simple and direct. Lead Market, segment, logistics, admin etc.

Figure 2: Network collaboration, implementation, learning from the example of A1

Telekom

Source: International Group of Controlling (IGC) / Klaus Möller (eds.): Controlling & Agility, 2022, page 53

This organization is based on the American Brian J. Robertson's "Holacracy" management system, which focuses on people rather than on coordinating work. Job descriptions were eliminated, and instead roles were defined, and if these became too complex, they were broken down into parts. The Circles are represented externally by "Leads," who are responsible for strategy and prioritizing topics within the Circle. The Leads focus on what to do, while the Circle members focus on the how.

Bosch Service Solutions

Using user experience (UX) and the design thinking methodology, Bosch Service Solutions introduced a system that enables different cost centers to create reports in a self-service manner.

During the pilot project at the Frankfurt headquarters, interviews were first conducted with key users. Based on this, "key findings" and "general findings" were identified. The former are critical for the cost center's self-service reporting, the latter are less relevant to the topic at hand but are important for the system's operation. The evaluation of these showed that cost center managers need flexible, continuous, and controlling-independent access to data. This also means, among other things, not having to retrieve data from different systems and entering multiple passwords but being able to access it with one click.

The second phase of the project focused on the technical implementation. The Power BI solution was developed using design thinking. This agile method enables a flexible development process, so the software will be operational sooner than in classic, design-based development.

As a result of the pilot project, cost center managers now have direct access to the data important to them and can create numerous different reports without the assistance of controlling. This not only increased their satisfaction but also that of the controllers. Thanks to the positive experiences, self-service reporting is being introduced globally at Bosch Service Solutions.

Hays

After experiencing rapid growth in German-speaking regions, the Hays personnel consulting company reorganized its sales operations to leverage synergies and increase efficiency. For instance, the number of business units was reduced from 34 to 8. Controlling also had to adapt to this change; it had to become a business partner and could no longer remain just a report generator.

Initially, they separated traditional controlling activities from additional value-creating activities. However, the team working as a business partner received more and more requests, so they had to decide again what to focus on. Therefore, those responsible began to categorize the needs according to the Cynefin matrix developed by Dave Snowden.

COMPLEX

Cause and effect relationship can only be seen afterwards – test it

Cause and effect relationship maybe not existent – act on it

Complete

Complete

Complete

Complete

Cause and effect relationship is known to everyone – just do it

Cause and effect relationship can be identified as-is – analyze it

Figure 3: Cynefin matrix

Source: International Group of Controlling (IGC) / Klaus Möller (eds.): Controlling & Agility, 2022, page 70

This classifies activities into four categories (complex, simple, chaotic, complicated) and recommends methods accordingly. Based on the matrix, all tasks that controlling must perform are re-evaluated every week. The tasks are represented on a Kanban board.

IGP Powder Coating

In the past, the financial organization functioned well if it was able to keep to the budget. However, in the current market environment, detailed plans do not work, so traditional financial management is not sustainable either. In the absence of detailed plans, IGP Powder Coating, a manufacturer of powder coatings for industrial companies, also had to become able to react quickly to changes. This required decentralized decisions and an entrepreneurial approach within the entire organization.

In the renewed financial management, motivation was provided by financial North Star goals² instead of budgets. Corporate strategy was translated into a financial number grid. This demonstrated a long-term orientation in the organization, at all levels of management. Planning became a decentralized, iterative process that took over the coordinating role of the traditional budget.

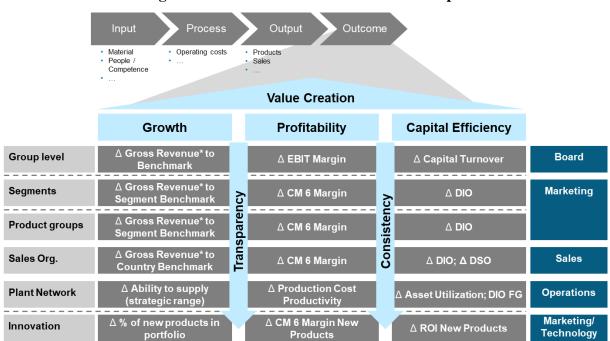


Figure 4: IGP's House of Performance Cockpit

Source: International Group of Controlling (IGC) / Klaus Möller (eds.): Controlling & Agility, 2022, page 75

Financial goals are communicated to the organization through the so-called "House of Performance", where the North Star goals are incorporated. KPIs are defined to facilitate collaboration between divisions. For example, reducing DIO (Days Inventory Outstanding) depends on both sales and production, so this indicator is important in the evaluation of both departments.

Financial North Star goals do not replace financial planning in the IGP, but they reduce the mandatory nature of the goals in order to eliminate tactics. Financial planning is used to anticipate opportunities and risks, the goal is displayed in the House of Performance. Therefore,

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 $^{^2\ \}underline{\text{https://www.forbes.com/sites/forbesbusinesscouncil/2020/11/16/how-to-establish-your-companys-north-star-metric/}$

there is a strategic gap between the strategic goal and the plan goal, and success is measured by reducing this gap.

The rolling financial plan and the rolling action plan are synchronized. Managing the strategic gap between the financial North Star targets, the rolling financial plan, and actual progress allows for forward-looking discussions on actions.

Lumanaa

Lumanaa consulting firm combined strategic planning based on success factors with Objectives & Key Results (OKRs). This allows agile management goals to be successfully linked to an organization's medium-term strategic aspirations.

At Lumanaa, founded in 2020, it was recognized that strong performance in marketing and sales was critical to the company's success. They aimed to ensure that when certain problems arose for their potential clients, the leaders there would think of Lumanaa first.

In order to find the path to the goal, success factors and goals were translated into concrete measures. Medium-term priorities were defined, which were further refined during the OKR process. OKRs connect strategy with operational implementation, thus becoming a fundamental tool for agile management.

At Lumanaa, quarterly goals are defined for each team based on the strategy. This increases flexibility, transparency, and motivation for employees. With OKRs, ambitious, almost unattainable goals are set to push employees out of their comfort zone and encourage them to perform better. At the same time, an OKR that is 70% achieved is considered completed, indicating that mistakes are allowed, and you don't have to be perfect.

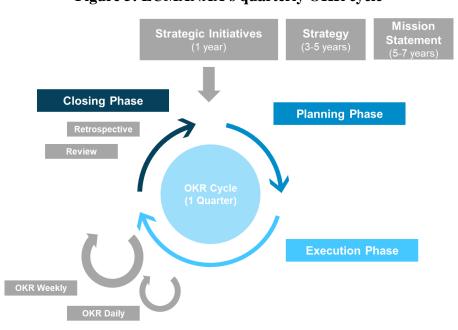


Figure 5: LUMANAA's quarterly OKR cycle

Source: International Group of Controlling (IGC) / Klaus Möller (eds.): Controlling & Agility, 2022, page 87

What causes agile operations to fail?

Most people are not capable of self-direction; they prefer to be told what to do. Among those who give these instructions—i.e., the bosses—many are reluctant to delegate decision-making. Agility cannot be commanded for either party; they need to be empowered to embrace it. If a company does not address this, it is unlikely to make progress.

However, if the organization becomes agile, hopefully, the work in controlling will become more exciting as well. A significant portion of controllers perform financial analysis, and according to a survey conducted this year, data analysis is considered the most boring profession³. However, if this work can be enhanced with independent decision-making, we can be confident that it will become more exciting for more people, including young ones.

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³ https://www.cnbc.com/2022/03/22/these-are-the-top-5-most-boring-jobs-according-to-researchers.html

Exploring family business through metaphors

Rita Tóth, Attila Wieszt, Máté Baksa

Gareth Morgan's influential 1986 book, *Images of Organization*, laid the foundation for a new school of thought centered on imagination and metaphorical thinking. In the book, Morgan analyzes the world of organizations through eight images (metaphors), arguing that no single image can capture the entirety of an organization; instead, each metaphor offers an avenue to understand organizations from the perspective of specific, associated aspects. Through the process of *seeing as* (Morgan, 1986), organizations can be imagined as machines, cultures, or instruments of dominations, thereby elucidating related concepts such as routine, rituals, or organizational politics. The present study aims to explore the educational applications of metaphorical perception through the theory of family businesses. To achieve this, we draw upon foundational (root) metaphors in the field, such as system or family, as well as additional (sub)metaphors that reveal various characteristics and key themes of family businesses in professional and academic discourse.

Metaphors together with theoretical concepts and empirical data constitute the essential elements of new theory construction in organization theory (Boxenbaum & Rouleau, 2011). According to Morgan's (2016) recent commentary, the most important development of imaginized thinking is the understanding of the relation between metaphors and metonymy. This means that when we use a metaphor we also engage in a metonymical process, through which we evoke and interpret specific aspects of the core metaphor to expand meaning more categorically onto the examined subject (Morgan, 2016; Schoeneborn et al., 2016). This metonymical reduction process helps in making knowledge explicit, whenever we are seeing as (Morgan, 1986), the research subject is replaced by a chosen metaphor. The seeing as process not only consists of a simple comparison between the similarities of the target and the vehicle domain, but also involves the creation of a meaningful aspectual similarity between them (Cornelissen, 2004). This means that if we use an apt metaphor to think about an organization, we become able to speak about the organization's features and related notions in terms of the chosen image. This specific language is supported by the metonymical process and allows us to identify the same subject through multiple metaphorical lenses, using different terms loaded with different meanings.

Metaphors hold substantial significance in educational contexts due to their capacity to facilitate understanding, bridge conceptual gaps, and generate richer cognitive engagement among learners. In the realm of education, metaphors allow abstract or complex ideas to be rendered accessible by linking them to familiar experiences. This is particularly valuable in domains like family business education, where metaphors can provide a language for navigating nuanced interpersonal, generational, and organizational dynamics.

In family business education, key themes such as succession, governance, family dynamics, ownership structures, and strategic planning are prioritized due to their consistent appearance

across widely recognized textbooks from leading academic publishers like Springer, Routledge, and Wiley. These themes are essential as they reflect globally accepted knowledge and provide a foundational framework for understanding the complexities unique to family-run enterprises, ensuring that educational resources are both relevant and authoritative in the field.

Incorporating metaphors in family business education not only enhances cognitive understanding but also deepens students' emotional and empathetic engagement with the subject matter. By employing structured metaphor-based exercises, educators can facilitate experiential learning, encouraging students to explore and reflect upon the unique dimensions of family businesses. Our illustrative study aims to serve this method by describing root and submetaphors of family businesses and linking key dilemmas and teaching exercises to them.

Metaphors of family businesses, family businesses through metaphors

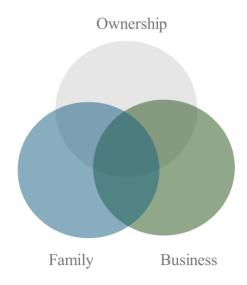
Family business as system

The meaning of the *system as metaphor* is deeply rooted in interpretive and constructivist perspectives, providing a comprehensive framework for examining, analysing, and interpreting various phenomena. The system metaphor is based on viewing a phenomenon as an interconnected structure where elements interact with one another and the whole is greater than the sum of its individual parts (Morgan, 1986).

This approach is particularly relevant for complex social systems such as organizations, as viewing them as systems allows for the observation of not only individual departments, employees, or processes in isolation, but also for the observation of the relationships and interactions among them. It becomes clear that an organization's performance or culture is not simply determined by the sum of individual contributions and roles but by the synergies and dynamics between elements (Senge, 2014).

The system metaphor holds significant relevance for understanding family businesses as it underscores the intricate interconnectedness and interdependence of various organizational elements. This metaphor frames family businesses as integrated entities wherein subsystems—namely, family, management, and ownership—are deeply intertwined. Visualized through overlapping circles, this model illustrates how these subsystems collectively form a complex whole, fostering unity and cohesion while simultaneously underscoring the necessity of boundaries and distinct roles within the system (Tognazzo, 2022).

Figure 1: Subsystems of family businesses



Source: Tagiuri & Davis, 1992

Viewing the family business through the lens of the system metaphor shifts focus from seeing it as a mere aggregation of parts to recognizing it as an interrelated network in which each element exerts influence over others. For instance, changes in one domain, such as ownership, invariably reverberate across family dynamics and managerial practices. Furthermore, conceptualizing the family business as a system aligns with ideals of *harmony* and *orchestration*, where family unity and business operations are mutually supportive within a balanced and integrative framework

In terms of family business educational themes, the system metaphor emphasizes that succession is a relational shift involving both outgoing and incoming leaders, whose roles are interdependent with other family and business roles. This view clarifies governance as not only a set of rules but as a network of structures, processes, and relationships that support the business's goals. It enables us to see governance as the framework that links family values, business strategy, and ownership priorities, reinforcing that effective governance depends on aligning these interdependent subsystems.

Family dynamics, a critical but often volatile component in family businesses, can be explored more effectively through the system metaphor by framing them as interactions within a broader organizational network, emphasizing that family dynamics are neither isolated nor static but integral to the business's functioning. The system metaphor illustrates that ownership is not just a distribution of shares but an arrangement with deep implications for family unity, governance, and strategic planning. Ownership structure affects and is shaped by family dynamics, control mechanisms, and the strategic vision of the family business, reinforcing the importance of balanced, well-integrated ownership that considers multiple perspectives.

In sum, the system metaphor facilitates an integrated understanding across family business topics, this approach fosters a mindset that values synergy and interdependence of the subsystems and their elements, key for effective management and planning in family businesses.

The Family as a Root Metaphor for Family Businesses

In family business research, the metaphor of the *family* provides a powerful root framework for understanding family businesses. It offers insights into their unique dynamics, particularly how these businesses emphasize loyalty, identity, and emotional commitment (Tognazzo, 2022). The family metaphor frames the organization as a social system where relationships, hierarchy, and shared history are central to its function. However, the concept of *family* is not monolithic. Various sub-metaphors, such as the *baby*, *patriarch*, *matriarch*, *heirloom*, *shield*, and others, further illuminate specific aspects of family businesses, helping to capture their complexities and navigate their nuances in both theory and practice.

The *baby* metaphor, frequently encountered among entrepreneurs, underscores the emotional attachment and nurturance required to establish and grow a business. Like a parent caring for a child, owners may experience their business as a vulnerable entity requiring protection, guidance, and investment. This metaphor is particularly potent for understanding entrepreneurial commitment and identity, where the founder's self-concept often merges with the company's early development stages. The *baby* is both a source of pride and a symbol of the founder's legacy, reflecting the intensity with which many entrepreneurs approach their firms.

The twin metaphors of *patriarch* and *matriarch* invoke authority, lineage, and the transmission of values. In the *patriarch* metaphor, the family business is a domain led by a figure of wisdom and experience, often reflecting hierarchical values where respect for senior members and continuity of family values are essential. The patriarch represents governance and tradition, with an expectation for the next generation to honour and continue the legacy. The matriarch metaphor, meanwhile, emphasizes a nurturing, relationship-centered approach to leadership, where the matriarch acts as a mediator and custodian of family unity. Her role often includes supporting younger generations, reinforcing values of care and cohesion, and balancing interpersonal dynamics within the business, making the family enterprise a more inclusive and resilient entity.

The *heirloom* metaphor resonates with the idea of the business as a cherished artifact passed down through generations. This perspective reinforces continuity, pride, and preservation, treating the business as an inheritance filled with values and identity that successors are entrusted to protect and sustain. Similarly, the *shield* metaphor envisions the family business as a protector, safeguarding members from economic uncertainties. It highlights the family's commitment to provide stability and security, positioning the business as a buffer against external risks.

The *anchor* metaphor paints the family business as a stabilizing force, offering grounding and continuity in times of change. This perspective is especially relevant as families evolve across generations, suggesting that the business provides an enduring sense of identity and tradition. Complementing this is the *family tree* metaphor which visualizes the business as an organic, interconnected structure with each generation adding branches and growth. This metaphor reflects how family members contribute to the business's legacy and collective memory over time.

Another key metaphor, the *nest*, emphasizes the nurturing and growth-oriented aspect of family businesses. It suggests a safe environment where younger family members are prepared for future roles, balancing the desire to protect them with the need to eventually let them take responsibility. In contrast, the *torch* metaphor represents the business as a symbol of continuity and responsibility, where each generation must carry forward the family's legacy, preserving tradition while also lighting the way for innovation and progress.

The *heart* metaphor sees the business as the emotional core of the family, uniting members around a shared mission and values. This metaphor captures the profound loyalty and interconnectedness that often define family businesses, underscoring the centrality of the business in family life. The *web* metaphor deepens this idea, illustrating the complex network of relationships and interdependence within the family and business. It portrays family roles, responsibilities, and expectations as intricately linked, with each connection influencing the overall structure.

The *mirror* metaphor views the business as a reflection of the family's identity, values, and ambitions, suggesting that business practices often mirror family dynamics, strengths, and unresolved tensions. Finally, the *seed* metaphor envisions the family business as a source of growth and future prosperity. This metaphor emphasizes investment and long-term vision, symbolizing the family's hope to nurture the business for successive generations, adapting and evolving as circumstances change.

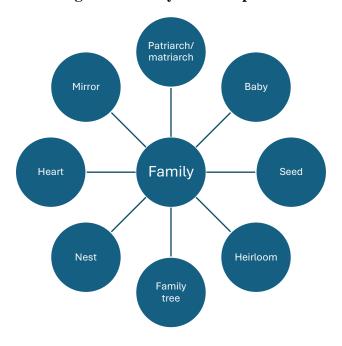


Figure 2: Family sub-metaphors

Application of Family sub-metaphors in Family Business Dynamics

These sub-metaphors provide valuable lenses for interpreting key characteristics and events within family businesses. For instance, the baby metaphor enhances our understanding of succession. Succession is not merely a transfer of control but akin to *passing the torch* of a growing entity. Much like a parent allowing their child to become independent, founders may struggle with trust and letting go, especially if they view the next generation as unprepared or lacking commitment. This nurturant perspective highlights the identity and emotional bonds shaping leadership transitions, where each generation is entrusted with preserving both the business and the family's reputation.

The patriarch and matriarch metaphors are instrumental in analyzing family governance and strategic decision-making. When a family leader assumes a patriarchal role, strategic priorities often reflect both the leader's experience and the values they wish to instill across generations, emphasizing tradition and stability. The matriarch, in contrast, focuses on fostering inclusive and harmonious governance, nurturing family relationships alongside business goals. Both figures influence strategic priorities, yet the matriarch often brings a balancing approach that can make governance more adaptive and relationship oriented. Together, they exemplify complementary forces, with the patriarch bringing structure and continuity, and the matriarch ensuring that relationships and values are preserved amid growth and change.

The *heirloom* metaphor lends itself to understanding ownership structures and continuity. Ownership here is seen as a valuable inheritance where successors are encouraged to maintain and protect the legacy, reinforcing a deep respect for the family's heritage. In parallel, the *shield* metaphor underscores the family's commitment to protect its members, highlighting how family businesses may prioritize financial stability and risk management to ensure that both family and business can withstand economic challenges.

With the familial culture within the company, the *anchor* metaphor signifies how the business stabilizes the family during turbulent times, grounding members with a shared sense of purpose. The *family tree* metaphor complements this by illustrating how family relationships are intricately woven into the organizational culture, with each generation contributing to a multifaceted legacy that nurtures pride and belonging across the family.

The *heart* metaphor is particularly relevant to the alignment of interests between owners and managers. Family businesses often unite family members around core values and emotional bonds, creating a culture that harmonizes different goals within the family. In practice, the heart metaphor helps explain why some family businesses prioritize non-financial objectives, valuing loyalty and moral responsibility alongside economic performance. Likewise, the *web* metaphor sheds light on the complex interdependence in family businesses, where overlapping roles can foster alignment but also tension, depending on family dynamics.

The *mirror* metaphor serves as a diagnostic tool in understanding conflict resolution and family dynamics. By reflecting the family's internal relationships, the business can surface unresolved family issues or reinforce positive traits, such as resilience or loyalty. Conflicts in the family business may echo deeper family dynamics, with the metaphor encouraging leaders to be self-reflective and adaptive, recognizing how family roles and expectations impact the organization.

Finally, the *nest* and *seed* metaphors emphasize the forward-looking vision in family businesses, particularly in strategic planning and investments. The *nest* symbolizes a safe space for nurturing future leaders, underscoring the importance of supporting younger family members in acquiring necessary skills and gradually integrating them into business roles. Meanwhile, the seed metaphor reflects the family's long-term aspirations, encouraging investments in growth and innovation that align with the business's continuity and adaptability. This perspective instills a sense of duty among the current generation to cultivate a fertile foundation for the family's future, considering the well-being of the business beyond immediate gains.

In conclusion, the family metaphor and its sub-metaphors serve as powerful interpretive tools for understanding family businesses, offering insight into their unique characteristics, challenges, and resilience. By framing the business through lenses such as the *baby*, *patriarch*, *matriarch*, *anchor*, *heart*, and others, these metaphors reveal the emotional and relational dimensions of family firms. This approach not only clarifies the family's influence on the business but also offers scholars and practitioners a rich language to engage with the subtleties of family dynamics in an organizational setting, where the bonds of family and the strategies of business intertwine.

Differences Between Family Businesses and Regular Business Organizations: Metaphorical Explorations

The following section delves into metaphors that arose from a collaborative brainstorming effort by the authors, aimed at highlighting the differences and similarities between family businesses and regular business organizations. These metaphors are inspired by insights from management educational handbooks and a thorough examination of the fundamental definition and structural characteristics of modern organizations. Modern organizations are defined as systems of people and things, with a permanent purpose, formal structure, and purposeful rules. Members of these organizations join voluntarily and are free to leave. Furthermore, individual goals within such organizations may diverge from the overarching organizational objectives. Contrasting these traits, family businesses many times exhibit distinct characteristics. The metaphors below aim to symbolize and explore these differences, enriching our understanding of the unique nature of family businesses.

Mafia. The *Mafia* metaphor evokes the notion that, unlike regular business organizations, family businesses often operate under conditions where joining and leaving are not entirely voluntary. Membership in a family business is frequently inherited by birthright, making it inherently different from modern organizations where individuals choose to join and can freely depart. The metaphor also reflects the intricate, often invisible, web of relationships and obligations that extend beyond the workplace. These relationships can carry significant influence, shaping both professional roles and personal lives.

In the context of family business research and education, the Mafia metaphor can be instrumental in examining how loyalty, legacy, and kinship play pivotal roles in organizational culture. The metaphor highlights that the bonds within a family business can create a strong

sense of identity and unity but may also result in restricted autonomy and complex exit processes. It sheds light on how these embedded relationships influence decision-making, accountability, and the overall cohesion of the business. The Mafia metaphor thus serves as a valuable lens to analyze the profound, sometimes binding nature of personal connections within family enterprises, as opposed to the more transactional and flexible affiliations in modern organizations.

Walnut Grove or Cathedral. The metaphor of a Walnut Grove or Cathedral symbolizes the long-term vision characteristic of family businesses. These metaphors represent endeavours created not for immediate gratification but for future generations. Just as walnut trees take years to mature and cathedrals often took centuries to be completed, family businesses often pursue goals that span beyond the lifespan of their founders. This stands in contrast to regular business organizations, especially publicly listed companies, where quarterly earnings and short-term performance measures are prioritized.

In family business research and education, the *Walnut Grove* or *Cathedral* metaphor underscores the strategic emphasis on legacy and multi-generational planning. These metaphors help illustrate how family businesses often make decisions that reflect enduring values and a commitment to sustaining the enterprise for descendants. This long-term outlook can lead to business strategies that prioritize stability, heritage, and sustainable growth over rapid profits. The use of these metaphors in education provides a framework for students to appreciate how family businesses balance immediate operational needs with far-reaching aspirations, fostering an understanding of the patience and foresight that define their strategic direction.

Theater group. The 'Theater Group' metaphor highlights the differences in specialization and division of labor between family businesses and regular organizations. In a theatre company, the actors are given; the director must select roles based on the existing talent pool and aim for the best possible fit, even if it means certain limitations. This reflects how, in family businesses, the available human resources are often predetermined by family membership. Unlike modern organizations where positions can be filled based on an open market search for the most qualified candidates, family businesses must work with the existing pool of family members.

This metaphor extends to emphasize the need for long-term strategic thinking in human resources within family businesses. Just as theater directors plan roles not only for current performances but also to develop their actors' capabilities over time, family business leaders must consider how to assign roles that enhance the skills and growth of family members. Moreover, akin to theater groups where every member typically has a part to play, family businesses often strive to ensure that no one is left behind. Family members can usually expect to be given a certain role in the company, fostering a sense of belonging and shared purpose. This metaphor helps to explore how adaptability and loyalty are balanced with the limitations of a confined talent pool, prompting discussions around training, mentorship, and succession planning to prepare family members for future leadership.

Tribal Council. The *Tribal Council* metaphor encapsulates the distinctive decision-making methods found in family businesses. In a tribal council, decisions are made not just through formal procedures but through a blend of tradition, intuition, and respect for authority. The metaphor evokes a setting where the influence of each participant varies based on their position

within the group, with the voice of the chieftain or senior members often carrying the most weight. Similarly, in family businesses, decisions are frequently influenced by historical roles, seniority, and personal connections rather than purely objective criteria.

This metaphor is particularly illustrative for understanding how decision-making in family businesses is shaped by context and relationships. The *Tribal Council* highlights that who speaks is as crucial as what is said, with power dynamics playing a significant role in shaping strategic choices. Decision-making may be more fluid and less procedural, reflecting an environment where intuition and collective wisdom are valued alongside formal logic. The council metaphor also underscores the importance of oral traditions and storytelling, which may inform how knowledge is passed down and how shared values are reinforced. In family businesses, decisions can embody a collective memory where past experiences and the legacy of prior generations influence current choices.

Summary

In this study we explored the use of metaphors as interpretive tools to deepen the understanding of family businesses, particularly in educational contexts. Metaphors offer powerful lenses through which to understand and teach the complexities of family businesses. By encouraging *seeing as* thinking, educators can help students grasp the interdependence of subsystems, the interplay of roles, and the broader strategic challenges of family businesses. Moreover, the use of metaphors cultivates a balance of cognitive and emotional learning, empowering future leaders to navigate the unique dynamics of family enterprises with insight and empathy.

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Info bureaucracy

Ádám Angyal

Management and organization science is often confronted with new challenges in the field of integrated and computerized innovations in management and leadership. These are presented by comparing traditional bureaucratic work organization with IT-supported corporate management. My method is the essay, which in its original sense is an attempt to express the author's ideas. My writing is not based on findings supported by references, but on a summary of insights. The research underlying the essay is quidditative, a holistic approach to processes and phenomena, rather than the familiar qualitative and quantitative methods.

Characterization of the bureaucracy

In the following, for the sake of my interpretation, and only in relation to it, I will summarize the classic characteristics of bureaucracy.

Bureaucracy is primarily a system of organization and work developed for administrative processes, characterized by highly, even completely, rationalized and regulated processes and behavior. Bureaucratic work can be characterized by a triad of regulation, control and puritanical professionalism, in which work efficiency, disciplined implementation and rule-following take precedence over problem-solving, initiative or creativity. It is a system of work management, originally in government, but now widespread in many other areas, including business.

It is characterized by:

- 1. a general, all-encompassing, well-regulated set of procedures
- 2. competences are separated
- 3. hierarchical organization, positions and working methods, with subordination and superiority
- 4. the conduct and behavior of staff is also governed by rules
- 5. staff are appointed on the basis of qualifications, skills and performance
- 6. the classification of workers also implies pay grades and ranks
- 7. bailiffs are full-time paid employees
- 8. promotion and remuneration are usually based on rules
- 9. employees are not part of management and are not owners
- 10. work is monitored and disciplined
- 11. written form is the dominant form of internal and external communication

The above is often referred to as military organization.

Bureaucracy is essentially a characteristic of autocratic organizations, whether they are companies, nonprofit organizations, civil service or government. Its theoretical background is Taylor's idea of breaking down and organizing work processes into autonomous and interconnected elements and thereby creating efficiency. The word 'bureaucracy' comes from the Greek words for paper+control, and the word 'bureau' also refers to paperwork. Historical

antecedents include the Mandarin system of imperial administration in China, which has similar bureaucratic features. In addition to the characteristics described above, the Chinese bureaucracy also had a system of training, examinations and classification of officials.

The word bureaucracy is very often associated with negative images. Most of these are related to its ethical qualities and appearance. These include slow, complex processes, the avoidance of responsibility by reference to rules and superiors, the power of administrators, their overbearing power over clients who feel helpless. Typical are the need for authorization, the need for proof, the need for documentation, etc. This paper focuses on these ethical lapses.

Characterization of integrated (automated computerized) corporate governance and management

I present only the features necessary for the interpretation of my thoughts on computerized and integrated administration and management, to the extent that this paper requires. I interpret all this only in the corporate, for-profit domain.

With the development of information technology, integrated systems of corporate governance have emerged. Their overall aim is to rationalize the planning and use of resources, to organize work processes in a transparent and traceable way and thus to achieve a high degree of efficiency. The direct objective of integrated management systems is not to maximise profits but to increase efficiency.

Integrated ERP systems are made up of modules that work independently and interconnected, even as a system. There is no hierarchical relationship between the modules, but they support and serve each other. Typical modules, i.e., management blocks, include purchasing, external and internal logistics, inventory management, invoicing, finance, liquidity management, investment and capital operations. Transportation, freight forwarding, management, reports and accounts, orders, customer management are also typical modules. Marketing, market operations, manufacturing, production, service, human resources management and administration, accounting, record keeping, accounting, auditing, evaluation and control, day-to-day operations and other functions are also part of the integrated management systems. In essence, integrated management modules are already available for all areas of corporate operations.

The developers and vendors of integrated management models are typically administrators and also service providers, trainers, installers, customizers, maintainers, verifiers, i.e., key work and process managers. There are currently around two dozen management systems vendors offering their services in Hungary. Integrated management systems were first developed for corporate practice, but nowadays they have been developed for the management of all kinds of organizations, and some modules are also used in public administration, public services and the civil sector.

A common feature of the modules, the integrated systems, is that they are IT-based, with significant IT support.

The marriage of bureaucracy and integrated corporate governance

The object and purpose of my research is to show that integrated management systems are very much like bureaucracy. ERP systems, that is, systems based on the concept of resource planning, are essentially bureaucratic in nature, whether they are a single module or a set of interconnected modules, or even a whole, of an integrated system. This does not seem to be a great revelation, since both bureaucracy and ERP systems are rational ways of organizing work. My interpretation, however, is directed at a less studied area of comparison, namely the ethical problems of the two working methods. The to classical bureaucracy are essentially ethical in nature. In my analysis, I will explore the bureaucratic nature of the integrated management system and the ethical problems that arise from it.

I call the general ethical problems of information technology *info ethics*. Within this, a separate field is *info bureaucracy*, which analyses the bureaucratic nature of integrated and automated management systems.

Organizational management, production, trade, service, administration have developed special IT-based, customizable operational, management and leadership models and systems. One of their common features is a high degree of process organization and the pursuit of expediency and efficiency. In their operation, ethically dubious and questionable solutions occur, as in classical bureaucracy.

I will review some phenomena of informatized (often wrongly called *digitalized*) management (administration), i.e., info bureaucracy, which are bureaucratic in the traditional sense, pose ethical problems, and serve the satisfaction of social needs only stutteringly and incorrectly. Within integrated corporate governance, my attention is focused primarily on informatized administrative processes, that is, management and experiences about operations independent of specific modules.

Administrative IT **is impersonal**, based only on input data, managing parameters accepted by the system. If, for example, a problem is uncontrolled, i.e., an exceptional situation for the system, the special procedure associated with it will only be followed if, for example, the characteristics of the unfavorable or exceptional situation are recognized by the system. This can also be considered as inhuman. For example, if someone has difficulty in entering data into the computer, then due to "time out" or some other technical limitation, they have to log in again and it can all start again; in other words, the application is a limited option for some users. The systems are mostly "unmanned". Impersonalism is characterized by a sense of superiority, a feeling of helplessness and a sense of powerlessness in the user.

The operation of IT management is **hierarchical**, with the decision on procedures in the hands of the policies, supervisors or administrators. Operators cannot override a programmed solution even if they recognize a good reason to do so. In such cases, management or administrator intervention is required. Many systems allow for special procedures, but these can only be carried out under pre-defined conditions and within pre-defined limits. It may be the case that the cashier of a shop cannot correct errors he has made but must call his supervisor for authorization. This can be justified on safety grounds, but it is also restrictive. Empowerment-

based applications are not typical. Hierarchical organization also implies a transfer of responsibility to superiors.

Access to system applications is varied, but typically multi-stage. There is a general requirement for authorization to receive and manage information. Even interfaces opened for the sole purpose of obtaining information very often require access procedures and impose conditions. Access to information is often organized through complex menu systems that require the user to be informed of the exact and professional description of dozens of problems that appear to be similar. If users wishing to interact with a system or interface not only for information but also for simple operations, additional access, partly security and partly technical, is required. These "authentications" are themselves multi-stage, interlinked subsystems. In the Hungarian sub-systems of public service organizations, the user or user who finally gets access has to choose between about a hundred different problems and tasks. To make a direct connection, one must browse through the menus.

Forms, administrative guides and templates that can be filled in on the internet or internal networks are becoming increasingly common. Almost all data entry and recording can only be done on the basis of this documentation. Even everyday letters are coded and transformed into data and formulas. However, if, for example, they also have to be documented on paper for authentication purposes, IT is a double workload.

Many systems, including service providers as well as public authorities and courts, do not accept automatic **authentication and** require original signatures. Many contracts - typically employment contracts - are only valid if all pages are initialed. Digital signatures and direct identification in front of a screen are increasingly allowed by the rules, but this is not common for security and authenticity reasons; and, there are also concerns about the principle of this. A recurring observation from health administrative staff is that, despite significant improvements, the management of the unified health system is more of a workload increase than a simplification. In many systems, despite excellent capabilities, some data and information exist only on paper and are not managed by the system. Complex data or sensitive documents may not be transmitted or stored by systems because they are not authorized to do so or because they exceed the available storage or transmission capacity. In such cases, links or references are used to convey background information, which requires additional steps to manage. Even in their internal operations, larger organizations use a mass of forms and templates to manage some sub-problems. It is no exaggeration to say that in large organizations, hundreds of bylaws guide behavior.

Administrators determine the procedural and administrative **methods**, in good cases based on the needs of management. Sometimes, for IT reasons, such as simplification, transparency, system upgrades or security, operational objectives may be distorted or compromised, ultimately becoming more complex. Updating familiar procedures creates an additional burden and new constraints for users, even though the declared aim is to simplify and enhance user-friendliness. It is important for a large administrative system to strive to make as few changes as possible over time as experience shows that these changes almost automatically lead to errors. At the same time, however, it has been observed that newer and newer developments by large service providers cause difficulties for system operators and users. Some operators are

known to run their old and new systems in parallel because they are not fully compatible. For example, a single invoice sheet may contain serial numbers, customer ID, contract number, place of consumption ID, invoice value, shipment ID, dates in addition to the usual name, address, etc. Typically, some service providers produce separate detailed invoice explanatory notes, which also require some skill to interpret. This is also the case for the Single Health Service Area or the KRÉTA or NEPTUN systems used in education, although they are state-of-the-art in terms of IT.

Specialized, **technocratic administrative** systems have developed. An administrator, such as a registrar, accountant, storekeeper, operator, accountant, cost manager, etc. cannot or is not allowed to deal with problems on his own but has to seek programmed IT help if no solution is found automatically. Traditional questions such as "how to account" and "what to consider", etc. can hardly be dealt with at the level of the administrator. The range of familiar and well-functioning workarounds is reduced. Following the well-known activity analysis in organizational science, computerized administration is based on meticulous, even excessive regulation. Public administration, tax administration, health services face similar problems due to the huge data management requirements. The vast amount of data to be managed is at the disposal of users, and the choice of the right subject for each case is a long and informed process. **Over-regulation** is a common phenomenon. Telephone menu systems require a similarly complex series of steps. Some companies have already recognized this problem, and callers are listened to at an information desk (chat) and then directed to the appropriate specialized area.

Computerized processes **are regulated** and normative. However, it is known that part of reality is not of this nature. For example, the health sector makes extensive use of diagnostic and procedural protocol methods, but these cannot replace medical opinion or intervention. Closed solutions that seek to regulate all possibilities are useful, but they cannot work in critical situations. For example, larger aircraft generally have robotic maneuvering capabilities without human intervention, but in critical or emergency situations pilot intervention is essential and required. This phenomenon must also be addressed in the development of self-driving cars.

The great strength of computerized administration is its **predictability** and the sometimes-complex nature of outcomes, which can be followed especially by those who are competent. This increases the security of systems and users. An example of such a predictable human resource management system is the career path model, which allows planning of what career requirements and steps are normally expected. For many, this means security. However, in the context of the high mobility patterns of our times, the benefit of such a model is of value to few.

Standardized, formalized procedures generally facilitate review and work execution. Most of the solutions are also monopolized for the users, there is no way around the objectives. It is a recurring phrase: "it's what the system came up with" and then there is nothing to do. It is not an elimination or reduction of bureaucracy to have screen-based solutions rather than paper-based ones. Computerized administration has the potential to automate the development of solutions, statements and aggregates that previously required manual and lengthy work sessions. In addition, it is known that user-managers are becoming more and more aware of the wide range of possibilities and are coming up with new information requirements. Management

systems offer managers dozens of pieces of emerging information that are at best of interest to them, but serve more as background for analysts. There is no known general model that best deploys on a manager's computer the information that is important to him. They are chosen by the managers themselves.

A general characteristic of computerized administration, i.e., info bureaucracy, is the difficulty **to improve,** possibly misinterpret, the output or result. Organizations are developing service organizations (compliance and complaints) for corrective action and complaints management and compliance. The problems are partly due to the complexity of the process and the volume of data input. Weaknesses and lack of upfront identification and programmed solutions to the many problems that can arise are also a cause of complaints. Systems learn from their own mistakes only to a limited extent; this work is done by administrators and some artificial learning intelligence. Information bureaucracy is generally not suited to creative action. Frequently asked questions (Q+A) interfaces provide answers to many problems, but they are far from complete.

The use of computerized administrative systems is leading to a significant reallocation of the skills and numbers of **staff** employed. Traditional jobs are disappearing, skills are becoming obsolete and redundant, and new requirements are emerging. Employee competences are being reassessed. This process can be observed not only in the management of the organization, but also in its day-to-day operations. Executive technical and technological staff are increasingly expected to have IT, programming, control and management skills and competences. The number and scope of manual operations is significantly reduced. The best known example in the automotive industry is the welding and painting process line associated with the construction of structures, which has become robotized and automated, essentially without human intervention. However, assembly and finishing lines rely heavily on direct human intervention. The situation is similar for almost all automated manufacturing systems, where increasingly, in addition to the machine lines, only supervisors are involved in the processes instead of direct workers. They have appeared in almost every field from food to electronics. Fault detection and, in particular, repair and troubleshooting systems for equipment mostly require human intervention.

Estimates are already available on the extent to which certain intellectual and physical work areas are being transformed into digital, IT-supported or supported, **non-direct**, **non-manual jobs**. According to current knowledge, elements of corporate, organizational and management processes that cannot or should not be automated will remain in the long term and will continue to be carried out by human intervention. This applies to production, services, health, education, etc. There is a significant human presence in processes where external objective circumstances, which are hardly influenced, play a role, such as in the agricultural sectors and the environmental economy. Creative work such as policy, strategy, science and art is likely to continue to be largely human work.

Computerized management systems also have the problem of handling **large amounts of information.** Traditional management methods are designed to cope with this, using only the most relevant information needed for the process. Such as ABC analysis, Pareto's 80-20 rule, or statistical procedures such as averaging, assuming normal distribution, etc. It is a common

experience of problem management to think that the most appropriate way to solve problems with many components is to consider only the most important and most typical few, usually three factors, and to consider the others as imponderables. IT, taking advantage of its ability to process much more and faster data than the human mind, makes limited use of these simplifying wisdoms, even though they are common weapons of management, rapid and operational intervention for transparency. It is well-known that in some cases, calculations done on chequered paper, estimates, and intuitions play a significant role compared to information based on complex data sets.

The architecture of integrated and automated managed **organizations** reflects the needs of computerized processes. The core of traditional organizational structures is the core activity, such as production, service, trade, etc. This is complemented by support and service functions in organizational units. Regulatory and control units are the core units of organizations with informatized administrative management, with info technology service providers as the main pillars. These are often external partners. It is typical that without supporting IT companies or services, the organization itself may be dysfunctional, so these functions are often integrated within the organization.

In the table below, I have compared ethically sensitive and questionable leadership activities and roles in traditional and informatized leadership.

Corporate governance phenomena	Classic bureaucracy	Computerized administrative management
Identity	The administration is indifferent, treats tasks equally, impartially, and embodies power, rigid	No face-to-face encounters during implementation, only data entry and readout, keyboard and screen contact
Hierarchy	The administration has no empowerment, it only acts according to the rules, in case of disagreement or dispute, the supervisor decides and is responsible	The procedures and options are pre- programmed, in case of deviation, the supervisor or system operator intervention is required
System access	Administration is subject to personal identification or legal authorization, documentation	Access codes, verification, multi- factor or other identification
Formalization	General use of forms, requesting data and procedures on a bound track, mostly on paper	The system is entirely track-based, with procedural steps and stages to progress through the administration

Corporate governance phenomena	Classic bureaucracy	Computerized administrative management
Authentication	Presentation of personal identification documents, signatures, proof of entitlements	Verification of electronically guaranteed privileges, trust and reality checks via authorized access
Method of administration	According to predefined procedures, application of rules, handling of exceptions is the competence of superiors	Following programmed procedures, automated administration
Technocracy	A mass of binding rules and regulations	Use only controlled, programmed methods
Regulation	Over-regulation, detailed procedures	Fully regulated, with systems for all foreseeable events
Calculability	Knowing the options, you can anticipate the outcome and consequences of the procedures	Based on a thorough knowledge of the system, expected outputs and results can be programmed
Correctability	On the basis of personal comments, superiors in the hierarchy can make corrections and exceptions	In the event of comments or errors, supervisors or administrators need to intervene
Labor needs	Determination of the workforce needs adapted to the performance of the core activity, the workers are obedient executors	Determining the number and skills of the workforce needed to run the system is paramount to efficiency
Handling large amounts of information	The mass of information and its control is time and resource consuming, usually slow and timesensitive	Handling and processing large amounts and different types of information instantly or quickly
Organization Shaping	The core activity is the defining feature of the organization, supported by complementary activities	The organization evolves according to IT needs, which provide the necessary management interventions and information

In conclusion, it can be said that integrated management systems, including management, computerized administration, have many features similar to bureaucratic work organization. This similarity also extends to ethically questionable phenomena of concern. The integrated management systems have not succeeded in eliminating the negative ethical phenomena that characterize traditional bureaucracy, but only in changing and modernizing their appearance. Instead of paper and clerks, processes are represented by IT tools and administrators.

Occasionally, we have even seen the emergence of technical solutions that go beyond the anomalies imposed on classical bureaucracy. Ethical reservations about computerized administration, especially on the part of users and users of the system, have become more significant.

Change management and dual strategy implementation

How can an Information Technologies Outsourcing (ITO) company implement a dual strategy?

Soma Kárpáti

Leading change - or change management - is a buzzword. We often hear the saying that "nothing is constant but change;" if we look back 500, 100, or 50 years ago and consider what is happening today, we see that this is indeed the case. History is characterized by constant economic, social, political, or geographical change. Great powers rise and fall in the blink of an eye; others are born great powers and dominate world trade and politics. One of the main challenges of the 21st century is to be both responsive to the present, so addressing the problems that arise in the "now," and at the same time trying to prepare for the changes that threaten us changes that we know are unpredictable but likely to happen. Think of events such as the conflict in the Middle East or - we don't need to go far - the war between Russia and Ukraine; the radicalization of Europe and the rise of far-right, populist ideas; or the United States, where movements are being launched daily that are fundamentally upsetting long-established social structures (e.g., Me too).

It is no different in the life of companies, where constant adaptation, innovation, redefining themselves, developing new products, entering new markets, and acquiring new customers puts constant pressure not only on leadership and management but also on the members of the organization; leaders expect employees to provide solutions, while leadership shows the way. This is particularly difficult for organizations that are listed on the stock exchange. According to Harvard Business Review, since 2000, more than half of Fortune 500 companies have gone bankrupt, been acquired, or just vanished due to digital disruption. They are confronted with the theoretical problem (stakeholder value) and the dilemma of creating value for the narrower and broader community (CSR) while being profitable and meeting the investors' expectations. After all, owners and investors are constantly expecting higher growth, higher profit expectations, and higher margin ratios; just think, if mammoth companies like Apple, Samsung, or Google fall even minimally short of investor expectations, it has immediate negative consequences on the share price and therefore on market capitalization and corporate funding directly. Stakeholders (external or internal, employees, suppliers, customers, etc.) have different expectations: employees expect better working conditions and higher pay; suppliers expect more predictable selection processes, better profit margins, and longer-term cooperation; and customers expect superior quality, customer service, and service excellence. In this circle, companies must navigate by monitoring and trying to meet the expectations of all the stakeholder groups concerned; but, the dear Reader may sense at this point that meeting the expectations of each stakeholder group often cannot be done without the direct interaction of these factors, as corporate efficiency gains frequently translate into downsizing (as this is one of the easiest ways to reduce costs) which will undoubtedly translate into employee

dissatisfaction. The market's perception of this is twofold: investors may perceive the organization as "leaner" and more efficient; still, a cutback may also be a harbinger of a crisis.

What is this case about? Introduction to ITO and the industry environment

The introduction serves as a thought-provoking phase to the following case study, which deals with a fictitious company whose main activity is managing services typically through Information Technologies Outsourcing (ITO), particularly Digital Workplace Solutions (DWS).



Figure 1: Magic Quadrant for Outsourced Digital Workplace Services

Gartner.

Source: Gartner, 2024

In Figure 1, the reader is presented with the 2024 analysis of the world-renowned research and analytics firm Gartner's Fantasy Magic Quadrant, where they have placed the 18 prominent companies in the market on two axes in a 2x2 matrix. These axes are the Ability to Execute and

Completeness of Vision, and the four dimensions are Niche Players, Visionaries, Challengers, and Leaders.

The leading companies include Indian, British, and American firms. An emerging group of challenger companies also aims to challenge the status quo and transform the industry. Some companies are smaller and follow a more focused strategy (e.g., Getronics). Whether this will be sufficient to rise amongst the Leaders with innovative solutions and outstanding customer retention rates is questionable. What is inevitable in the long term is that no company can be complacent. Leaders must maintain their position and stay at the forefront of their solutions to avoid slipping. In contrast, companies in the bottom two axes need to match vision with the ability to execute.

Before we go into more detail about the company, let's look at what ITO and Digital Workplace Solutions (DWS) mean.

An area typically (but not exclusively) dominated by multinational companies, where a company with thousands of employees usually outsources some or all of its IT processes to a specialized company with a core specialization in this area. What is the point of this? Imagine a company with 10,000 employees, each with one (or more) laptop, mobile phone, or tablet. These devices often break down, expire, get lost or stolen, and employees usually use company devices for more than just company business. Therefore, a company is needed to take over the management and control of these devices, provide hardware and software support, repair or replace them if they break, deliver and set up the devices if a new entrant comes into the company, install them if they are broken, and hand over and destroy their devices if they have been terminated. Of course, there are many more services (data protection, software and hardware management, licensing, management of other applications, etc.), but these are the most basic examples for simplicity's sake.

These outsourced services are managed services because the outsourcing company naturally sets expectations in the form of KPIs¹ and SLAs² for the outsourcing company (e.g., how fast a new laptop must be delivered). ITO companies typically operate their services in the form of SSCs.

Without being exhaustive, the following services are included in DWS:

- **Customer service.** Multilingual assistance to company staff via multiple channels (phone and chat), typically software-based (e.g., email account, password reset, etc.)
- **Virtual desktop imaging**. Creating a virtual infrastructure to allow colleagues to access company resources from anywhere from their device.
- On-site support. If a problem arises with a device, be it a desktop, laptop, or server, the company can send an on-site technician or engineer to fix the problem.

² Service Level Agreement. Typically, a contractual framework between the cooperating parties specifies the expected critical and measurable points of the outsourcing service.

¹Key Performance Indicator. Articulates the expected timeframe or quantifiable outcome of a given objective, typically derived from corporate strategy and linked to efficiency.

• IT service and process management. Outsourcing of any IT process from the outsourcer to the ITO company, be it ERP application management, data warehouse management, cloud services, or asset management.

The peculiarity of this collaborative model is that customers typically outsource some or all of their IT services because (a) it is not part of their core business or (b) the size of the company has reached a point where management has recognized that it costs more to run it internally than to outsource it (make or buy). In this case, and related to the corporate example, this is what we call a dual strategy implementation, where the outsourcing company, for some business reason (economic or otherwise), and the ITO company enter a cooperation where it is in the interest of both parties to make the service work as well as possible, thus contributing to the corporate strategy.

Change leadership as the implementation of strategy

Of course, these collaborations do not start and usually do not work efficiently, so competition is intense between large companies in the market (see Figure 1) and firms competing in the broader local market. There is a constant turnover of suppliers, the most common being a rotating structure, with ITOs taking over the operation from each other at the end of the contract. For companies that are outsourcing for the first time (in Europe this typically happens when they reach a few hundred million Euros in turnover, but more likely 1 billion), this is a massive change, as many processes and structures are changing. This is where change management comes in.

Companies increasingly recognize that technological change affects processes, systems, and employees. Companies can employ change managers and methodologies to make change as easy and painless as possible for employees. Change management professionals are constantly faced with a complex task, as they need to (a) understand the customer's current problems, (b) identify the critical points where intervention is needed, (c) be aware of the technology solution that is being implemented at the customer's site, (d) develop a change management strategy, how each new technology solution will impact the business processes and the various stakeholders, and how it will be received, which may be positive, but may of course also be harmful. After all, just think how positive our attitude would be when we are used to and familiar with how a system or process works. Still, we receive news that it is about to change in a short time, in a direction, and in an utterly unknown way.

The dilemma of implementing the dual strategy

Our fictional company (let's call it *an IT Services Company*) has overseas roots, employs nearly 20,000 people, and manages outsourced IT activities to several large European and American companies.

The company consists of four central strategic business units and one cross-functional unit. One of these is the Digital Workplace Solutions (DWS) unit, which includes the above-mentioned areas of activity.

In addition to its strong presence in the US and Europe, the IT Services Company is also present in Asia and South America, where it seeks to strengthen its presence.

The breakdown of turnover (around USD 5 billion) is as follows:

- 1. Europe (40%)
- 2. USA and Canada (30%
- 3. Asia and Oceania (12%)
- 4. South America (10%)
- 5. China (8%)

In addition to providing outstanding services within DWS and satisfying most of its customers, the IT Services Company recognized the need to enter other markets. It started an intense R&D activity, particularly in two areas: (a) Artificial Intelligence & Automation (b) and sector-specific solutions such as Logistics and Aerospace.

The company's management faces serious dilemmas. Regarding dual strategy implementation, customers expect continuous improvement, innovation, lower unit costs, more efficient service, excellent customer service, and results that meet contract SLAs and internal KPIs. Some customers are no longer talking about such indicators but about user experience management, for which they would create a separate unit responsible. However, measurability and uptake within the industry are still questionable, and methodological uncertainty remains.

A further difficulty is that money is needed to develop R&D activities, which would require the company to reduce the service cost. Still, current staff often feel overworked and work overtime. Management sees the impending problem of needing more clients by utilizing current human capital through efficiency gains alone or through redundancies. However, as already mentioned, the organization is operating at maximum capacity. Although the company has change management specialists; they are busy with external client work and do not have time to deal with internal organizational change and development issues. Tension is growing within the organization, as everyone feels that the status quo cannot be sustained for long; but management needs to commit to a strategic direction.

Management and leadership in public, non-profit and business organizations

Éva Krenyácz, Anda Milassin, Éva Révész

Below are five short illustrative cases to show typical organizations from the public sector, the non-profit sector, and the business sector. These organizations operate with different objectives, in various contexts and models, and their leaders face different challenges in their work.

All cases are typical but present a fictitious organization. AI was used to generate the images and logos for the cases.

Municipal Health Center



The Municipal Health Center (MHC) is a modern, high-quality healthcare facility that serves the health needs of the region's population. The center aims to provide accessible, reliable, and innovative care for people of all ages.

The hospital has a capacity of 300 beds, with 12,000 operations per year and an average length of stay of 4.2 days (with a high variation due to the range of specialties). It has a central hospital building (intensive care, internal medicine, surgery, diagnostics), an outpatient center, and a rehabilitation department. It is equipped with CT, MRI, ultrasound, and laboratory diagnostics.

Further, a modern operating theatre complex with six operating theatres, a telemedicine system, and digital chart management.

The health center serves a population of roughly 200,000 people, who induce 250,000 outpatient admissions and 30,000 inpatient admissions per year. It operates in several specialties but caters to specific target groups in pediatrics, geriatrics, obstetrics-gynecology, and oncology, as it has the human resources and specialized expertise needed in these areas.

Professions and capacities:

- Typical outpatient specialist services: internal medicine, cardiology, endocrinology, pulmonology, neurology, psychiatry.
- Surgical specialties: general surgery, orthopedics, trauma surgery, urology.
- Specialized areas: oncology, hematology, neonatology.
- Support services: physiotherapy, speech therapy, dietetic advice.

The priority services related to capacity are:

- Mother-friendly maternity unit: family-friendly rooms, alternative birth options.
- Oncology center: chemotherapy and radiotherapy, psychological support.
- Emergency care: 24/7, full acute care.
- Rehabilitation with individual and group therapy options.

The hospital is run in a cross-functional organizational model by a top management team (Director General, Director of Finance, Medical Director, and Director of Nursing). Weekly meetings of the chief medical officers are held, typically attended by the divisional chief medical officers. The total number of staff is 730, including 300 specialist nurses, 180 doctors, and 120 other health workers (physiotherapists, dieticians, etc.). Administrative, technical, and support tasks are carried out by 130 people.

Small Town Mayor's Office



The Small Town Mayor's Office is the leading administrative body of the municipality, dedicated to managing the affairs of the population, supporting the town's development, and serving the community. It helps to improve the quality of local life through its transparent operation, modern services, and dedicated staff.

The small town is located in the Burok Valley, an area of 45 km² rich in natural treasures, with a population of about 12,000. The town has a rural atmosphere and is the industrial and agricultural center of the sub-region. The municipality is represented by its mayor, who is the town's chief executive. The mayor is supported by two deputy mayors, and the professional head of the administrative process is the notary. The decision-making body of the town is the Assembly, which has eight members.

The departments of the Office

The Public Administration Department is responsible for civil registry matters and customer relations services. The Finance and Economic Department deals with budgeting, taxation, and tendering. The Urban Development and Technical Office deals with transport, infrastructure and building authority matters. The Social and Education Department is responsible for coordinating public education, cultural and social institutions, and programs. Lastly, the Community and Environment Office is responsible for the management of civic relations and the implementation of green programs and urban events.

Key indicators

Annual budget: HUF 2.5 billion.

Annual client turnover: ~35,000 cases.

Number of staff: 32, of whom 24 work in the administration and eight in the municipal technical

operation and maintenance services.

Infrastructure

The modern, accessible mayor's office has a customer-friendly design. Fast and convenient online services are available through the city's official website and customer portal system. The city has a community square located next to the office. This includes a modern event hall that hosts community events and is often the venue for weddings.

Featured city programs

Ongoing urban infrastructure projects include new parks and playgrounds, and road and utility improvements are ongoing. To promote environmental sustainability, the Office supports green energy initiatives, organizes waste reduction campaigns and last year launched a project for the regenerative transformation of urban green spaces. Local festivals, fairs, and cultural events are organized to build community. Urban social programs target the elderly and families in need (assistance programs) and young people (scholarship opportunities).

Smiling Stars Association

Goals and mission

The Smiling Stars Association has been supporting children with intellectual disabilities and their families for 10 years, with the aim of enabling beneficiaries to lead active, happy lives as full members of society. Building on the triad of community, professionalism and love, the Association strives to create a more accepting and inclusive society.



Main activities of the Association

It provides developmental sessions for beneficiary children, which include regular movement, speech and other skill-building therapies led by experienced professionals. It also organizes community programs for the families concerned, mainly in the form of integrated events, such as annual summer camps, spring and autumn sports events, and other cultural programs. For parents of children with intellectual disabilities, the Association offers consultation on legal issues and psychological support. It is also important to reach out to the majority of society: awareness-raising campaigns are organized in the form of lectures and events in schools and workplaces to promote acceptance of people with disabilities.

Infrastructure

The center of the Association is an accessible community center in a large rural town, which includes three small therapy rooms, a room for larger group sessions, an office space, and an outdoor playground. It also has equipment to support services, such as modern therapeutic aids, special developmental toys for professionals, and a private minibus to transport beneficiaries.

Key indicators

- Number of beneficiaries: yearly around 130-150 children and their families
- Number of staff: three full-time professionals (one of them is the head of the Association) and four part-time professionals (special needs teachers, psychologist, social worker).
- Number of volunteers: about ten active permanent volunteers who support the
 association's work during events and daily tasks. In addition, around ten more
 secondary school students help with the various mid-year events and summer camps
 each year through the school community service.

N&F Solutions Ltd

N&F Solutions Ltd is a medium-sized family business founded in 1995 by Kálmán Nagy and his wife Katalin Nagy. The company now has two divisions: the **Bicycle Division** and the **HTG Division**. A few years ago, the management of the company was taken over by the couple's two sons, András and Péter, who have continued to develop the company. The family business aims to increase its market share and further strengthen its brands in the region through environmental sustainability and innovative solutions.



Bicvcle business

András, 38, runs the bicycle business. This business develops and produces kids, touring and electric bicycles. Sales are made partly through the company's own bike shop and partly through sports equipment dealers. Production takes place in a modern 2,000 m² production hall, where the company places great emphasis on sustainability, such as the use of recycled materials and energy-saving production technologies.

HTG business unit

Peter, 35, heads the HTG (Household Appliances) division, which specializes in the import and distribution of small and large kitchen and bathroom appliances. The company supplies domestic and regional markets with products imported from Asia and sold under its own brand name. The quality of the products is controlled in a local warehouse base and is served from there to resellers and online customers.

Market and indicators

The annual turnover of the company exceeds **HUF 3 billion**, of which 60% is generated by the HTG business and 40% by the bicycle business. The company has a stable customer base in Hungary, Slovakia, and Romania. The company **employs 65 people**, including engineers, logistics specialists, and customer service staff.

Hope Charity

Hope Charity was founded in 1998 by a small Christian community committed to actively expressing love through faith. The organization operated as a local initiative in a single city in its early years. Today, it has grown into a medium-sized organization that operates nationwide. The charity structure is hierarchical, with regional



centers managed by a central office that focuses on the needs of local communities. The leadership is headed by an executive director and supported by a six-member leadership team representing various areas, including finance, communication, and social work.

Main Activities

- 1. Social Assistance:
 - Providing food, clothing, and crisis support to those in need and disadvantaged groups.
- 2. Child Protection and Educational Programs:
 - Assisting orphans and abandoned children through foster care programs and children's homes.
- 3. Healthcare:
 - Organizing free medical exams and healthcare programs for underprivileged communities.
- 4. Development Programs:
 - Launching long-term development projects aimed at community building and fostering economic independence, helping disadvantaged communities achieve sustainable development.

Key Metrics

Every year, more than 5,000 people benefit from various programs, including food distributions, clothing collections, and social support. Over the years, hundreds of homeless individuals have received temporary or permanent shelter in facilities maintained by the organization. More than 2,000 disadvantaged children have received support through the charity's foster care programs, and thousands have participated in free extracurricular programs. On yearly basis, the charity engages over 500 volunteers, who assist through direct aid, as well as organizing collections and development projects.

This book is a tribute to our colleague György Drótos, PhD, on the occasion of his 60th birthday, whose career inspired the content and creation of this compilation. The book is a unique selection of case studies and essays that show how for-profit and public benefit organizations work, the technologies they use, and the roles of organizational members. These case studies and essays have been compiled for university students in business administration, to understand and analyze organizational, human, and technological issues and their interactions. The authors present real-life examples by combining their practical experiences with scientific rigor. We hope that readers will find it not only instructive but also thought-provoking.