TEEMU MALINEN

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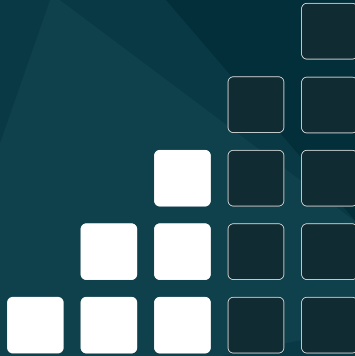
BOOST YOUR DIGITAL MATURITY

DIGITALIZE YOUR OPERATIONS

Boost your digital preparedness

Triumph over sudden changes

Renew yourself over the long term

Contents

REACHING

Foreword

Businesses are experiencing unprecedented pressure to push for digital transformation.

In 2014 I joined a group of Finnish start-up entrepreneurs on a field trip to Silicon Valley in San Francisco, organized by Boardman Grow. During the trip, we toyed around with the idea of what would happen if "Finland were to drive off a cliff". What would change if you had to rethink everything? What new opportunities would the situation provoke?
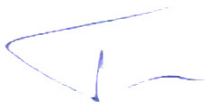
The exceptional circumstances we find ourselves in have forced us to slow down and reassess our situation. The world doesn't stop. It adjusts. Digital transformation has been a recurring topic for years, and now numerous companies are implementing it in a matter of months. Consumer behavior is entering the digital world posthaste. Tomatoes are being bought online. A four-hour commute to attend just one meeting is now considered a waste of time. Exercising in front of your TV screen seems like a viable option.

Discussions on adjustment easily confuse two things: the rapid change that takes place in an exceptional situation and the full-on modernization of operations. The former can be carried through on the double. The latter, however, requires innovation and updates to revenue models, among other things. In particular, it requires more time.

The purpose of this little guidebook is to provide you with a practical framework for recognizing the digital maturity level of your company and the requirements for its development. It also aims at helping you distinguish means and methods that can be implemented quickly from those that require thorough transformation. I hope this booklet will help you modernize your business both during and after a crisis.

This is the time to question long-established practices.

Regards, Teemu

Turku 4/28/2020

TEEMU MALINEN

Teemu is a multi-entrepreneur in the digital business who for 25 years has helped various organizations optimize their use of the web and mobile solutions in their business.

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Introduction

Remote working became a hot topic right at the beginning of the exceptional situation caused by Covid19. With restrictions on movement in place, it became natural to communicate using remote working tools. This is an example of quick and reactive adjustment. The tools were ready but their adoption had been slowed down by inexperience in using them. The new situation changed this once and for all.

A bigger challenge was presented by the considerable difficulty of running core operations amidst the epidemic. Turning the Michelin star restaurant Ora into a pop-up takeaway for Sasu-Sushi is an example of quick and reactive behavior [1]. The business model of the delivery service Wolt, on the other hand, provides an example of how traditional operations can be comprehensively rethought to fit the digital worldview.

Wolt has had to make adjustments in the prevailing situation as well. It has announced, for instance, that it offers the delivery of all takeaway orders free-of-charge [2] and that it will begin to deliver Lumene cosmetics [3] during the exceptional circumstances.

In other words, a profoundly rethought concept that relies heavily on digital technologies does not automatically provide protection but it does offer a foundation for quick core business-related adjustments. Due to Wolt's self-developed e-solution, the company's leap from being a food deliverer to becoming a cosmetics supplier is not as big as you might think.

Restaurant Ora could be categorized as a level 2 company in terms of the digital maturity model presented later in this booklet, whereas Wolt represents the highest category, level 5. Companies can typically reach the first three levels quite easily, but levels 4 and 5 require more innovation and resources.

In this booklet, I will go through the features of digital preparedness as well as the concrete ways to develop operations in order to achieve the desired maturity level. The aim of some companies is to harness digital technologies in service of their core business, while others want to transform the market using innovative electronic services. The digital means of the first three levels provide an opportunity for creating a competitive edge, although in some sectors achieving one is becoming increasingly difficult. On the two higher levels of maturity, gaining a competitive advantage is possible practically in any sector.
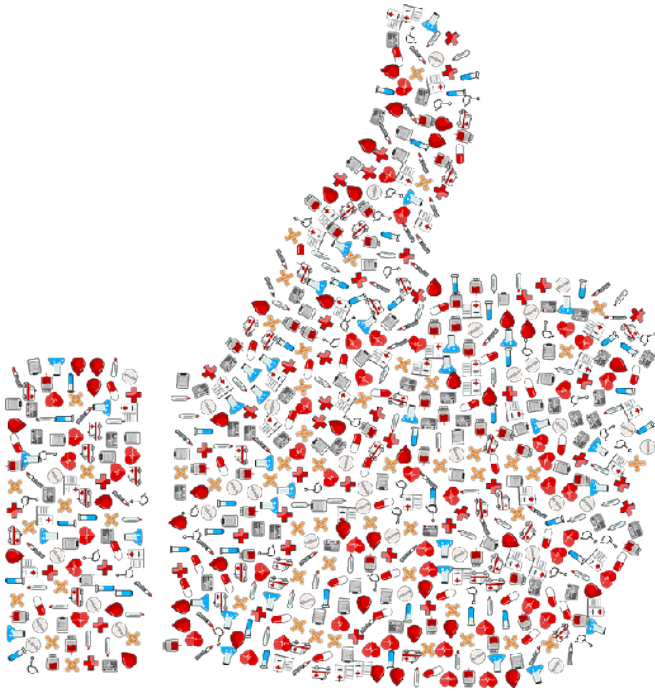
" THE DIGITAL MATURITY LEVEL
PROVIDES A FRAMEWORK THAT CAN
BE APPLIED IN A TIME OF CRISIS AND
IN THE NORMAL DEVELOPMENT OF
COMPETITIVENESS.

The Digital Business Maturity Model

Background

This model was created some years ago when I tried to find information on the classifications of companies' digital maturity levels. I came across some options but none of them seemed to tick the boxes for all my criteria.

I was trying to find something that was easily understandable, applicable to the Finnish context, detailed enough and up to date. My failure to find what I was looking for led me to try to prepare a model of my own.

The digital maturity of a company is a concept that indicates how comprehensively the company wants to use and how able it is to use modern electronic solutions in its business.

Already the first draft proved beneficial to understanding the digital business space of Sofokus' clients. The model makes the entire company staff aware of the starting point and provides a roadmap for reaching the desired level. The model helps to understand the investments needed to attain a certain maturity level (in relation to the company overall budget). It also helps to perceive which investments are most likely to help in gaining a competitive edge. The model can be used to chart the competition and to compare the company's level with that of others.

Using the model is deliberately unscientific, and the features of each maturity level are only suggestive. In practice, compa-nies always demonstrate features from several different levels, but the idea is to look at the big picture. Just think about grade point averages that can be used to compare a cohort of pupils. Even if a company is second to none in its own sector when it comes, for example, digital visibility, its overall maturity can still remain on level 2 or 3. Having extensive resources does not guarantee a high ranking, either, if a company isn't willing to make large-scale investments in digital technologies. Once all the features of a company have been looked at, the analysis is detailed enough.

The size of the company also matters. It can be pointless to try to determine one maturity level

for a big conglomerate whose multiple lines of business may be at entirely different stages of maturity. I decided to leave out level zero ("digital resister") altogether. A zero-level company would be one without a single web page or social media outlet. These types of companies have either ceased all operations [4], risen to level 1 or have no need for digital interaction (e.g. investment companies).

At this point, I should point out that the digital maturity level is only one factor in building growth-oriented business. In preeminent companies, digital technologies and traditional business intertwine so well that it may even be unnoticeable. Highly profitable growth business can

occur on all digital maturity levels. Success in the Finnish market hasn't until now required a lot of investment in digital technologies but things are changing and competition is increasing. Modern operators are now forcing other companies in their field to take the digital leap [5].

In the following chapters, I'm going to present the five levels of digital maturity and their features together with illustrative examples. After that, I will explain what you can do to rise from one level to the next. Finally, I will suggest some ways of operating in an exceptional situation and explain why it's beneficial to give some serious thought to improving your competitiveness in the long term.

ROOKIE
MATURITY LEVEL 1
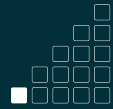
Organizational culture	Traditional
Digital leadership	Person
Company's own experts and development partners	0–1 experts and 0 partners.
Culture of digital development	Ad-hoc
Digital investments (in relation to resources)	Occasional
Typical time frame for return on value	Immediate
Digital assets	Website
Digital marketing	Content production: ad-hoc
Method of measurement	Gut feeling
Brief summary	The role of digital technologies is secondary; moderate, one-off investments

Maturity level 1: Rookie

Overview

A 'Rookie' is a company that minimizes its use of digital assets in its business endeavors. When it comes to acquisition criteria, inexpensiveness takes precedence over desired value. Investments are typically one-offs and as small as possible.

Corporate culture and digital organization

There isn't much company-internal understanding of the opportunities provided by digital assets. The company's digital development is typically handled by a relative with some technological knowledge.

The corporate culture is traditional. There's no culture of experimentation nor a mindset that would favor continuous development. The company is aware of a thing called 'digitalization' but it has no significant bearing on business.

Competitive advantage and strategic digital strengths

The company does not typically seek strong growth. The company doesn't usually have any defensible competitive advantages, and its business is often based on selling physical items or personal services within the company's field of operations.

The company hasn't set up any metrics that could be used to measure and develop its digital investments. Digital development is often based on a gut feeling.

Customer perspective

From the customer's perspective, the market can easily offer several replacements. The customer typically cares about the product itself, not the company supplying them. When making a purchase, the customer usually emphasizes product reachability (meaning that the physical product is available locally or that the customer knows the service provider).

Digital resources in use

The company has a website whose acquisition was based on inexpensiveness. The company doesn't possess much expertise in digital business, and its digitalization typically relies on a young relative who's interested in IT.

When it comes to social media outlets, the company uses Facebook, which is the company's principal or occasional electronic customer communication channel. The company's social media content is monotonous and often resembles newspaper advertisements.

There's no newsletter, no continuous advertisement, no customer management system or other tools that would incur monthly

charges. The purse strings stay tight, which prevents the company from trying out potentially useful e-tools. The company doesn't find it necessary to invest in custom-built systems.

Typical level 1 representative

Level 1 representatives abound in Finland in different lines of business, which is why I will only present one (anonymous but real) example.

The company rents out outdoor hot tubs and has a website that doesn't function properly when used on a mobile device. The company's basic information and product information can be found on its website, and customers are probably able to get what they want from the company. The hot tubs aren't rented directly through the page. Instead, the business transaction takes place when the hot tub is picked up.

The company has a Facebook profile which has some followers and replies to questions quite actively. The channel is updated only rarely, and the updates resemble traditional newspaper ads. The same feel-good images get repeated in the updates, which reduces the followers' interest in the long run.

Although the website and Facebook may seem a bit amateurish, the user experience is authentic and genuine, the customer is provided with the necessary information and the use of digital technologies supports the business.

INTERMEDIATE
MATURITY LEVEL 2

Organizational culture	Willing to learn, traditional
Digital leadership	Function
Company's own experts and development partners	1+ part-time experts, 1–2 partners
Culture of digital development	Projects and campaigns
Digital investments (in relation to resources)	Small
Typical time frame for return on value	In weeks
Digital assets	Website, Data
Digital marketing	Content production: continuous
Method of measurement	Individual KPIs, support functions
Brief summary	Continuous digital development and monitoring. Expects investments to return quick and concrete benefits. Eager to experiment and learn new things.

Maturity level 2: Intermediate

Overview

An 'Intermediate' company is a company that understands how digitalization can benefit the company's supportive business functions, in particular. The company typically focusses its digital resources on the development of marketing and sales (website, digital marketing, social media). The company's investments are continuous.

Corporate culture and digital organization

Inside the company, there's at least one person in a leading position who believes in digitalization and understands that it can be used to create value for business. This company typically wants to have its website created by a professional. The company knows who to turn to when they start discussing the development of e-business.

The organizational model of the company isn't in the vanguard of modern approaches but the culture is characterized by genuine curiosity and willingness to put knowledge to good use. The company yearns for more knowledge and wants to actively develop its digital technologies and related factors.

Competitive advantage and strategic digital strengths

The company is usually growth-oriented, which can be seen in how it invests in the development of different activities. The company doesn't normally have any defensible competitive advantages but things such as constant data gathering and service development may potentially enable gaining one in the future.

The company sets goals and measures the results of digitalization in a practical way. Typical examples of things measured include the total number of customer contacts, website visitors and newsletter or social media subscribers.

Customer perspective

Customers see the company as professional and trustworthy. They want to acquire services and products from this particular operator. The customers appreciate the fact that the company is easily searchable, that their website can be browsed with a cell phone and that the company tends to its customers at several digital service points.

Digital resources in use

The most important website criteria are functionality and professional realization. The website is designed to attract new customers, and it's been built by a professional company operating in the

field of digital business. The social media outlets the company uses have been chosen on the basis of customer behavior, and the company makes sure they are updated regularly.

The company often maintains a blog, releases a newsletter and uses several SaaS services (such as customer management) and also invests in them monthly. The use of ready-made SaaS services is considered to support the core business and regarded as an efficient and affordable way to develop the company.

The company typically doesn't want to develop their own custom-made systems.

Typical representative

A considerable percentage of Finnish companies are on this level. The utilization of digital technologies is constant, which reflects positively on, for example, the company's digital footprint.

Naantalin Aurinkoinen

Naantalin Aurinkoinen [6] is a popular coffee shop chain established in 1989. Its business idea relies on the production of sweet and savory baked goods and selling them at the company's own premises.

The company is an example of an operator that has risen from level 1 to level 2. For a long time, the company used to have a simple, professionally created website which was developed only oc-

casionally. Finally, the age of the website started to show in lack of functionality (searchability, mobile compatibility etc.) and user experience.

The renewed website even features some level 3 characteristics (such as stock balance and online shopping), but in order for the company to rise to level 3 it would need to continuously invest in digital visibility.

Attendo

Attendo [7] is Finland's biggest private provider of care services. Attendo has approximately 400 assisted living residences, which provide

care, rehabilitation and assisted living services for over 12,500 Finns. Attendo represents a major operator whose use of digital technologies is clearly apparent in its presence in electronic channels but whose core business has remained more traditional. The company's advertisements are highly visible on Google, and its Mummola ('Grandma's place') concept has a couple of thousand followers on Facebook. The website is professionally made but it features so much content that the overall image gets blurred. The role of the website seems to have tilted towards attracting new potential customers rather than serving current ones. The website doesn't seem to offer any e-services even though digital technologies play a role in the company's development (for instance, in its sustainability program) [8].
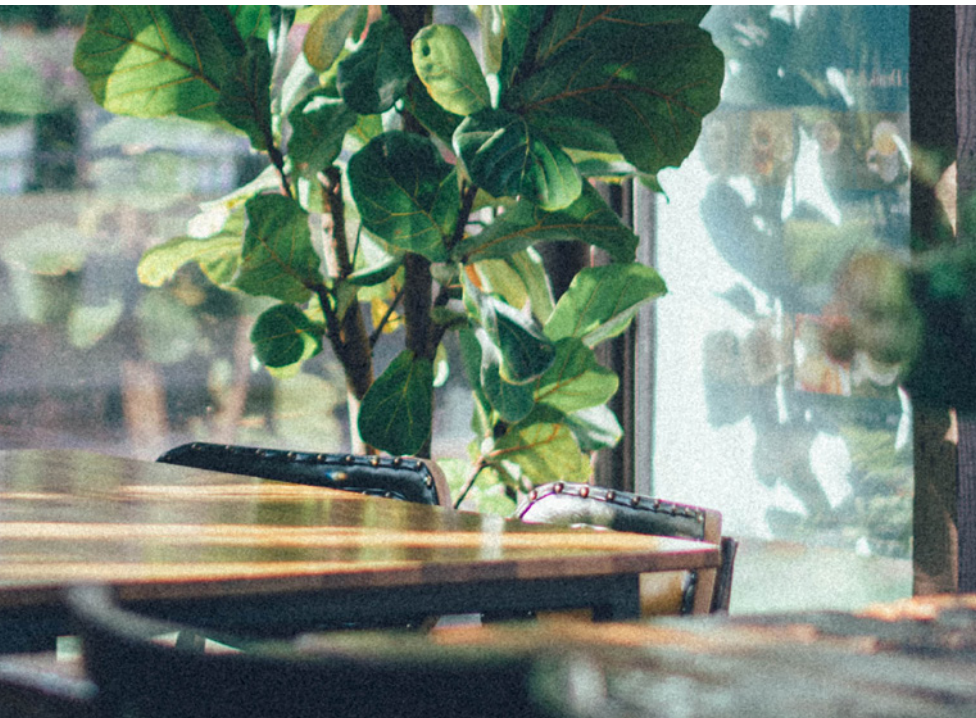
ADVANCED
MATURITY LEVEL 3

Organizational culture	Utilitarian, traditional
Digital leadership	Several functions
Company's own experts and development partners	1+ full-time experts, several partners
Culture of digital development	Continuous development
Digital investments (in relation to resources)	Medium-sized
Typical time frame for return on value	Months
Digital assets	Electronic services integrated into the backend
gital marketing	Content production: annual wheel
Method of measurement	Business goals, support and core functions
Brief summary	Continuous digital development and monitoring of core functions. Invests in the future. Favors ready-made products and platforms

Maturity level 3: Advanced

Overview

An 'Advanced' company is a company that understands how digital assets can be directly linked to its core business. A typical Advanced company connects ready-made online store software to its ERP. The company routinely uses digital technologies, which form a distinct part of its strategy and annual budget.

Corporate culture and digital organization

The company typically has one or more people whose main job is to develop digital business (e.g. online retailer or CDO).

Digital assets are seen as a development area that is strategically linked to the core business. Typically, the company has several trusted partners that help with digital development.

The organizational model of the company doesn't necessarily represent the state-of-the-art but the company is professionally led and digital technologies are close to its core business.

Competitive advantage and strategic digital strengths

The company clearly aims to grow, which gets reflected on the systematical development of all business areas.

The company usually possesses some competitive advantages, on which its growth is based. Digital assets are considered part of the strategic level, but their utilization is usually limited to "best practice" solutions. Digital technologies aren't used to achieve defensible competitive advantages, or they fail to achieve them. This policy is generally considered to make cost and realization risks manageable.

The company applies business metrics and is goal-oriented in how it manages its operations. The metrics are business-based (e.g. average online purchases per customer per month).

Customer perspective

The customer's spontaneous impression of the company is that it's well-known and trusted and, often, that it has a long history. The company's offerings and service experience are highly polished.

The company's services or products cannot only be found on the web but also bought online. The company is regarded as modern, and it seems only natural to interact with it digitally.

Digital resources in use

The company has invested in core business-based digital solutions. Typical examples include online store and online service solutions that are based on ready-made products.

The company's digital marketing focuses on competing for the top positions. In other words, the company invests in SEO, SEA, advertising on social media and so on.

The company is ready to invest in ready-made digital products and their customization but doesn't usually want to build its own, unique digital heart.

Typical representative

K-ruoka (Kesko)

Kesko operates in daily consumer goods, automotive and architectural engineering as well as construction. The industries and chains work in close cooperation with the shopkeeper-entrepreneurs and other partners. Kesko and K shopkeepers form the K Group, whose sales (pro forma) totaled approximately 13 billion euros in 2019. The K Group is Finland's largest trade operator and one of the largest in Northern Europe.

The size and the scale of the Group's operations make it difficult to assess the company's digital maturity. In this example, I will

concentrate on food supplies to make the assessment easier. The example provided by the K Group is interesting, since its activities suggest it has set its goal at reaching maturity level 4. This is encouraging for those big organizations that are agonizing over modernizing their traditional business ventures.

A traditional organization that sets out to become a Transformer is in for a bumpy ride. A couple of years ago, the online store of K-ruoka was representative of an average Finnish online store. It had the basic functions that made it possible to make a purchase, but it did not exactly leave you wanting to repeat the experience. Digital technologies were hardly the reason for wanting to choose a K store over others. The entirely renewed K-ruoka online grocery store is a game changer [9].

The K-ruoka online store was designed and built for its purpose. This is especially apparent in how the end customer experience has been polished. The benefit may seem small compared to any implementation of a ready-made online store, but in reality the difference is revolutionary. The development of online stores can easily slip into building additional functionalities. However, for the user, it's the basic things that make the difference: findability, speed, reliability and intuitiveness.

Shopping in the K-ruoka online store is easy, and the search works in real time presenting the results in visual form. The store discreetly asks the customer for feedback after each purchase, which indicates that the learning loop is built in to the development process. Users that invite their friends to visit the store are given a five-euro recommendation reward. The entire store is linked to the Plussa customer loyalty system. In one go, K-ruoka changed from the previous basic online store to a seamless and captivating digital service.

Even though K-ruoka is clearly building its own digital heart, for the time being it remains on level 3. At the time of writing this, the K hypermarkets of growth centers don't have many available timeslots for deliveries and only a couple of stores even offer delivery to your home door. Maturity level 4 would require that electronic services rise to the same level with brick-and-mortar stores when it comes to availability and reachability, for instance.

K-ruoka is well on its way to maturity level 4, and a digital heart will provide a springboard for achieving that goal. A digital heart that can be flexibly designed according to the needs of the business will give a boost to utilizing the company's electronic resources, particularly on the strategic level.

" WHEN THE EXECUTIVES REALIZE
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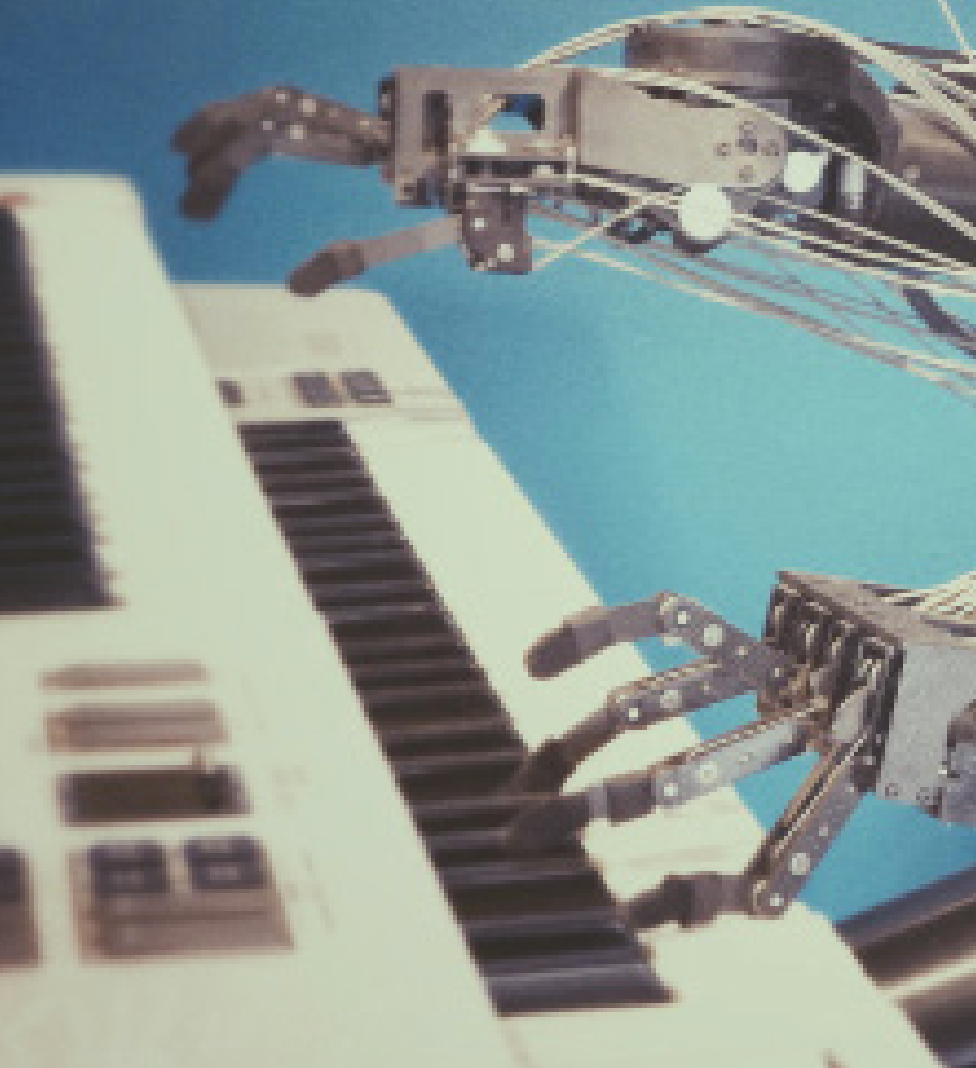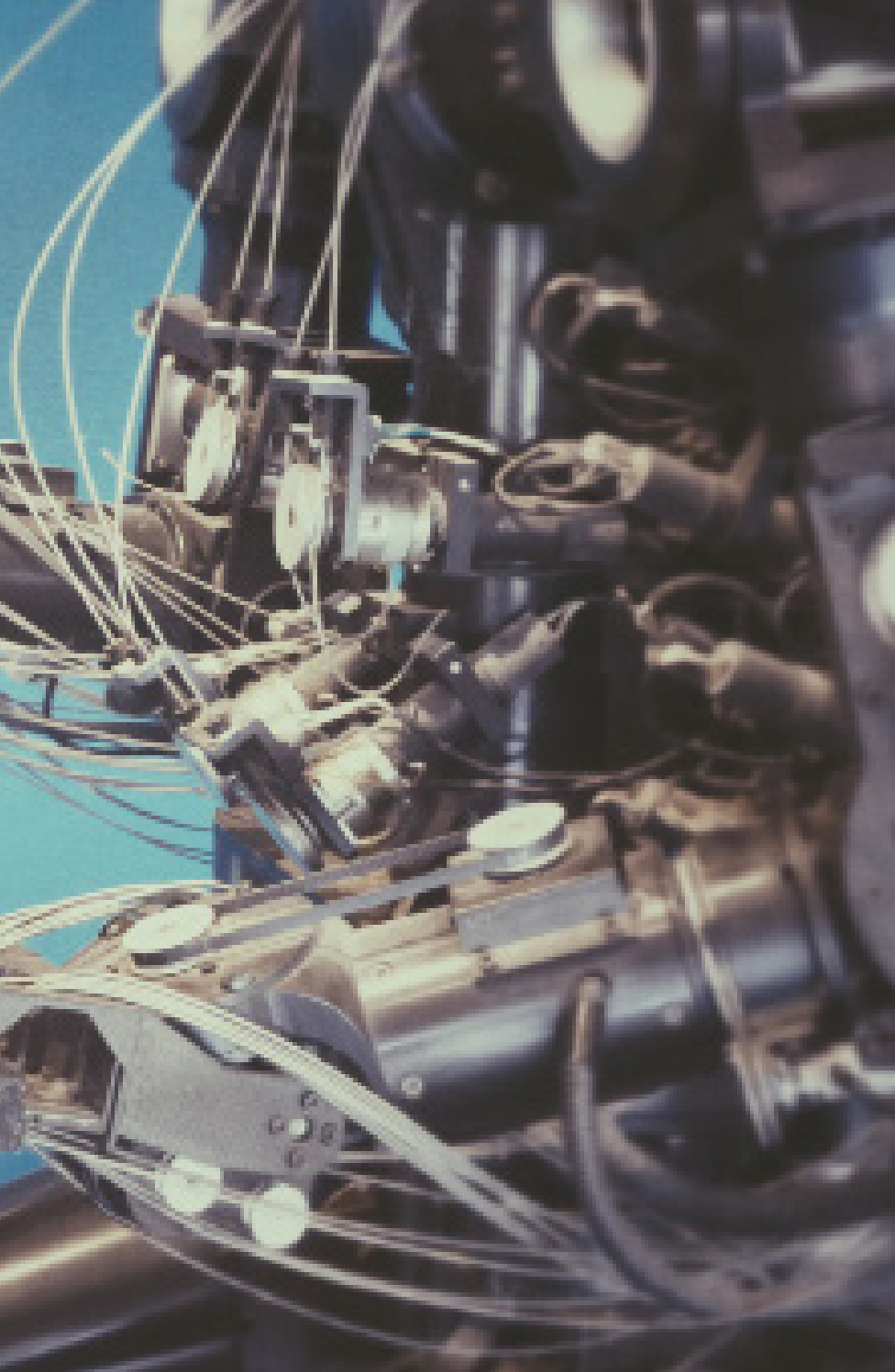
Rinta-Joupin Autoliike

Rinta-Joupin Autoliike Oy is a family owned Finnish car dealership that's been in business since the 1950s. The company represents 17 different car brands, operates in used car dealership and provides car service in altogether 23 towns and cities around Finland. The business employs over 400 people.

From the point of view of digital business, the car business is really interesting. Though the sector is a traditional one, it has a lot of level 3 and 4 companies. First of all, the sector utilizes backend systems that many growth-oriented companies integrate into their websites. This makes it possible, among other things, to browse the company's used car supply directly on its own website. At the same time, the company's wares are also made available in other, general portals [11].

The average customer expects to find used cars online together with a full list of specifications. It could be estimated that in Finland the average maturity level of this line of business is around 3. In other words, making it in the sector requires at least a level 3 maturity level – level 4 if you're aiming for more substantial growth.

One of the newcomers in the field is Autoverkkokauppa.fi , a level 4 representative [12]. The business design of Autoverkkokauppa.fi allows the customer to conduct the entire purchase online – including selling their old car and having the new one delivered to their home. At the center of Autoverkkokauppa.fi is a digital heart that relies on micro service architecture.

TRANSFORMER
MATURITY LEVEL 4

Organizational culture	Learns from customers, modern
Digital leadership	Customer-driven
Company's own experts and development partners	1+ teams, several partners, customer-led
Culture of digital development	Fast-cycle experimental culture
Digital investments (in relation to resources)	Large
Typical time frame for return on value	Years
Digital assets	Customer-centered digital heart
Digital marketing	Marketing strategy
Method of measurement	Customer journey- and scaling-oriented, all business functions.
Brief summary	Customer-driven, seeks a competitive edge rigorously Significant investments. Develops its own digital heart. Digitalization is a natural part of the entire organization.

Maturity level 4: Transformer

Overview

A 'Transformer' considers digitalization inevitable and a natural part of their business. The utilization of electronic assets integrates seamlessly into the company's business design, and its core business is built by putting digital technologies and the customer first.

When it comes to investments, digital technologies are seen as equal to other, more traditional business areas, and a major part of the overall budget of the company is allocated to digital development.

Corporate culture and digital organization

The top management of a Transformer understand the potential of large-scale digital investments for the development of business. Transformers typically have their own team of e-business specialists who develop the company's digital services. In addition, a Transformer company partners with top professionals and knows what to demand of them.

The company's organizational culture encourages experimental development and utilizes modern models such as agile development and self- or group directedness models.

Competitive advantage and strategic digital strengths

The company is clearly growth-oriented and develops its services in a customer-focused manner. A Transformer has a clear vision which it also communicates to the outside world.

A Transformer can utilize digitalization on a strategic level. It wants to set itself apart from its competitors and build a defensible competitive advantage in the long run. The company's investments support this aim in relation to the resources at the company's disposal.

The business development of a Transformer is based on a culture of metrics and utilization of the results.

Customer perspective

The customer considers the company interesting and different from other operators. The customer is particularly attracted to the Transformer's modern service range which features ecommerce as an integral part of the core service.

The service can often be easily tested online, and discontinuing the use of the service is possible at any time (e.g. monthly fee as a revenue model).

Digital resources in use

A Transformer makes comprehensive use of digital technologies.

One of its main resources is the company's own digital heart. It is a digitalized way of processing business-critical data, boosting customer service etc. In particular, the digital heart sets the company apart from its competitors and helps to create a defensible competitive advantage.

A Transformer utilizes a broad range of digital marketing methods and invests in things like inbound marketing machinery.

When it comes to supportive business functions that are not intended for creating a competitive edge (e.g. CRM), a Transformer strives to utilize ready-made digital software as much as possible (typically through software renting).

Typical representative

Liveto Group.

Founded in 2015, Liveto Group [13] is a start-up that was born out of a desire to help create successful events. The founder of the company, Antti "Boss" Korhonen, is an seasoned professional in the event business, and the company has already helped several new as well as established events succeed. So far, Liveto's platform has carried out over 10 million euros' worth of event sales in ten different countries.

Liveto is a typical level 4 company. The core of its business forms around its own digital heart: an event sales platform. With the

help of SaaS, any website can be made suitable for event and merchandise sales in fifteen minutes. The solution the company has developed has expanded over the years, which has made it possible to apply it to different lines of business. For instance, in these exceptional circumstances restaurants have been able to use it to sell gift cards and viewing rights to live-streamed events.

The company operates in a typical level 4 manner by trying to learn quickly and by continuously developing its activities. The company constantly adjusts the design of its operational model and service solutions in accordance with market needs. Continuous development typically leads to excellent customer feedback. Regardless of the line of business, customers appreciate companies which tirelessly try out new services and improve to the old ones the clientele seems to value. When carried out correctly, a digital heart provides a flexible and agile way of adjusting the company's own core service design according to the ever changing market requirements.

Verkkokauppa.com

The business model of Verkkokauppa.com combines an online store with four gigantic brick-and-mortar stores. The company's competitive advantages and strengths include a low cost structure, a well-known brand as well as the company's own ERP and online store platform. The continuously developing, multichannel service design ensure a first-grade customer experience. In 2019, the revenue of Verkkokauppa.com totaled over 500 million euros.

As mentioned above, level 4 and 5 operators develop their business on a long-term basis. Verkkokauppa.com is such an established operator that it's easy to forget it was once a one-man garage company. "Finland's Amazon" was founded in 1992, and it has used the development methods of digital business mentioned in this booklet for over 20 years, becoming the biggest operator in its field in Finland. The company has also had good timing. When the company was first established, the Finnish online store market was untouched and made it possible to reserve the domain name verkkokauppa.com (in English, 'onlinestore.com').

Since its establishment, the company has wanted to stay one step ahead in the use of digital technologies. In the end of the 1990s, when the company's contemporaries still had static web pages, verkkokauppa.com boasted a dynamic product search. For decades, the company has systematically invested in the development of its own digital heart, which has given it a long head start compared to the electronics retailer Gigantti and other similar operators, for instance.

"Buying a system off the shelf gets you a system that's just as good as everyone else's," says Henrik Weckström, CTO at Verkkokauppa.com. [14]

Due to its own digital heart, Verkkokauppa.com has managed to stay one step ahead by introducing new solutions that support its core business. One example of this is the real-time digital price and stock signs the company uses in its brick-and-mortar stores. Anoth-

er is making SMS confirmations a permanent feature of the online store service. Today, SMS confirmations are common practice.

When reminiscing about past successes, it is good to keep in mind that being a pioneer requires courage. When the company introduced their renewed online store, the purchasing experience dropped briefly. This was partly due to the multiple teething problems in the payment forwarding component which had been introduced to address customer needs.

However, the change was justified and thought-out because the company was building a, at the time rare, purchasing process in which the person making the purchase could represent either a private individual or a company depending on the situation. Even today, Verkkokauppa.com's highly advanced purchasing process is better than that of many more recent online stores.

This captures the essence of level-4 company operations: The company needs to have the courage to introduce new things to the market but simultaneously it needs patience to hone its processes. Teething troubles are inevitable, and when solutions don't work, their development needs to stop. The winding-down of a flawed solution needs to be regarded as a valuable lesson, not as a wasted investment.

Verkkokauppa.com could have been justifiably put in the level 5 category. The company has modified their entire brick-and-mortar-oriented business and forced their biggest competitors to in-

vest in online activities. It has made groundbreaking innovations and used its digital heart to create a competitive edge. However, in recent years, the company's innovations have slowed down considerably. Risk taking has been replaced by the caution of an exchange-listed company. [15]

Return to level 5 is still possible. What if "Finland's Amazon" were to develop its digital heart and make it more platform-like? What would happen if the company decided to become a platform developer in the center of the ecosystem and to offer its digital heart to others?

PIONEER
MATURITY LEVEL 5

Organizational culture	Ecosystem-oriented learner, modern
Digital leadership	Ecosystem-driven
Company's own experts and development partners	Entire organization, several
Culture of digital development	Ecosystem culture
Digital investments (in relation to resources)	Large
Typical time frame for return on value	Years
Digital assets	Ecosystem-centered digital heart
Digital marketing	Ecosystem-led marketing strategy
Method of measurement	Ecosystem- and industry lead-driven, all operations
Brief summary	Ecosystem-driven, wants to change the world. Innovation-led and bold, enforces development. Invests heavily. High risk operations.

Maturity level 5: Pioneer

Overview

A 'Pioneer' is an innovator that provides solutions on the industry level. A Pioneer is goal-oriented and strives to dominate the market by doing things differently, which may earn it a reputation as a market disruptor. Each market typically has only one or a couple of Pioneers.

A Pioneer is able to balance the traditional and digital aspects of its entire business. Digital technologies do not form a separate part of the business design but are an integral part of it.

Corporate culture and digital organization

The entire organization of a Pioneer is built around specialists that produce innovations with a digital focus. Typically, the company seeks to utilize its surrounding networks to a maximum effect.

The company's organizational culture represents the state-of-the-art and its operations are based on learning through experimentation and finding a scalable model. The organization is able to learn quicker than its competitors.

Competitive advantage and strategic digital strengths

In its own market, a Pioneer is known as a bold trailblazer. The company gets all the media buzz and is copied by others.

A Pioneer has a crystal clear vision, a sharp strategy and defensible competitive advantages. The typical competitive advantages include a team that's more skillful than the competitors', a highly advanced and innovative digital heart and the ability to react faster than anyone else.

A Transformer is particularly interested in continuously improving the development rate of the business, and it may even be able to harness network effects to its advantage. To top this, a Pioneer is also able to attract development-oriented experts. The fresh talents of a Pioneer enable the company to further accelerate its rate of development.

Customer perspective

Customers looking for a modern approach seek out a Pioneer. There usually aren't many options to choose from. Digital technologies are such a seamless part of the company's operations that customers may not even be aware of their existence. A typical customer may think: "Why don't all companies offer me this kind of service?"

Digital resources in use

Scalability has been taken into account in the entire innovative business design, from the traditional elements to the digital technologies.

A Pioneer is usually in possession of valuable data which it has used to create a unique digital heart solution that may utilize AI or network effects, for example.

The digital heart is integrated into dozens (or hundreds) of ready-made software and stakeholder systems, ideally making the Pioneer's solution almost an inseparable part of the ecosystem (cf. Google's search engine).

Typical representative

Blok

How can you tell a company is passionate about operating on level 5? For example by the fact that the company gets in trouble with the authorities [16]. The real estate service Blok [17] follows Uber's footsteps in wanting to change the established practices in its field. Radical reformers are often perceived as market threats which leads to demands that they be silenced at all cost.

Level 5 companies need to be unconventionally creative and tireless in their pursuit of the "impossible". At the same time the risks

become significantly greater compared with the previous maturity level. The role of the Pioneer is to be a leader for change and to train the market, which can be challenging and expensive. Pioneers are typically funded through risk financing. On level 5, business development needs to overcome completely new hurdles, such as legislation.

The pioneers of the previous wave (such as the real estate services Etuovi and Oikotie) introduced platforms on which demand and supply still meet today. The selling of real estate is to a large extent still carried out by people, however, so lowering the level of costs is challenging. Blok aims to keep the costs low by making use of its own digital heart, automation and artificial intelligence.

The utilization of automation and AI are basic tools for a level 5 company. In order to make the use of data cost effective and scalable, its collection and enrichment needs to be automized as far as possible. If the data the company has collected and enriched allows it to operate more intelligently than others, it may start building a defensible competitive advantage.

Amazon Flywheel is based on a superb user experience that attracts users to the website. A rise in visitor numbers increases the amount of data, resulting in improved and more accurate analytics. The detailed analytics allow the company to improve its products and range, further increasing the visitor numbers. This creates a flywheel effect that keeps on gathering momentum. As

...fantastic user experience attracts
users to the site. A rise in
visitor numbers increases the amount of data,
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lytics.

you might have guessed, making use of this phenomenon requires the company to have its own digital heart [18].

In Blok's business concept, the real estate owners only carry out the showings while the digital heart takes care of everything else, including pricing. The company also takes pictures of the apartment and handles the marketing. In Blok's solution, the customers can naturally follow the selling process – from the processing of offers to the scheduling of showings – themselves. The commissions are significantly lower than the industry average [19].

Wolt

Established by Miki Kuusi in 2014, Wolt set out to renew paying for restaurant food with a mobile application. However, the company's end customers soon made it clear that home deliveries were the way to go [20]. Level 5 companies often change course midway. The operative word is pivoting. Pivoting can be a small change (consider Wolt as a case in point) or a total 180, as with Slack, which turned from a video game developer to a business communications reformer [21].

A quick change of direction is possible in companies that have a modern corporate culture. Their operations are strongly customer- or ecosystem-led. The company acknowledges that the Board doesn't hold all the wisdom but that all operators in the market need be listened to with a sensitive ear. A modern corporate culture also entails transparency and different models of self-direction. Changing direction slows down dramatically if people don't

have access to company data or if they need to ask for their manager's permission to use it.
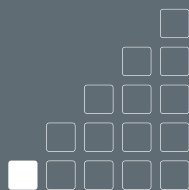
Wolt is an example of an ecosystem-led business design. The company also operates according to the principles of the platform economy. The platform economy is a modern business model, in which a company is responsible for providing a digital heart that serves several different stakeholders in the market. In Wolt's case, important stakeholders include, for example, food deliverers, restaurants and consumer-customers. Another typical platform economy trait is that Wolt itself focusses on developing the platform and that the exchange goods are provided by companies using the platform (in this case, restaurants).

Even though Wolt still has a ways to go before becoming a global leader, it has already come far. The company's turnover exceeds 30 million euros and it has managed to accumulate one the biggest risk financing rounds in the Finnish startup landscape [22]. As many other Pioneers, Wolt, too, has found itself in the middle of a media controversy [23]. The company has assumed a proactive approach and taken the bull by the horns by, for instance. openly providing information on the earnings of the food deliverers [24].
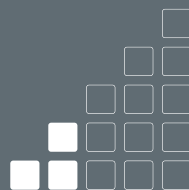
Summary

The following sums up the digital business maturity model in one table.

DIGITAL BUSINESS MATURITY MODEL

	ROOKIE MATURITY LEVEL 1	**INTERMEDIATE** MATURITY LEVEL 2
Organizational culture	Experimental, traditional	Willing to learn, traditional
Digital leadership	Person	Function
Company's own experts and development partners	0–1 experts and no partners	1+ part-time experts 1–2 partners
Culture of digital development	Ad-hoc	Projects and campaigns
Digital investments (in relation to resources)	Occasional	Small
Typical time frame for return on value	Immediate	Weeks
Digital assets	Website	Website, Data
Digital marketing	Content production: ad-hoc	Content production: continuous
Method of measurement	Gut feeling	Individual KPIs, support functions
Brief summary	The role of digital technologies is secondary; moderate, one-off investments	Continuous digital development and monitoring. Expects investments to return quick and concrete benefits. Eager to experiment and learn new things.

ADVANCED
MATURITY LEVEL 3

TRANSFORMER
MATURITY LEVEL 4

PIONEER
MATURITY LEVEL 5

ADVANCED	TRANSFORMER	PIONEER
Utilitarian, traditional	Learns from customers, modern	Ecosystem-oriented learner, modern
Several functions	Customer-driven	Ecosystem-driven
1+ full time experts and several partners	1+ expert teams and several partners	A broad range of experts and several partners
Continuous development	Fast-cycle experimental culture	Ecosystem culture
Medium-sized	Large	Large
Months	Years	Years
Backend-integrated electronic services	Customer-centered digital heart	Ecosystem-centered digital heart
Content production: annual wheel	Marketing strategy	Ecosystem-led marketing strategy
Business goals, support and core functions	Customer journey- and scaling-oriented, all business functions.	Ecosystem- and industry lead-driven, all operations
Continuous digital development and monitoring of core functions Invests in the future. Favors ready-made products and platforms	Customer-driven, seeks a competitive edge rigorously Significant investments. Develops its own digital heart. Digitalization is a natural part of the entire organization.	Ecosystem-driven, wants to change the world. Innovation-driven and bold, enforces development. Invests heavily. High risk operations.

Reaching the desired maturity level

Background

When the company's digital maturity level has been identified, the next step is to determine the desired level. Note that the maturity level isn't reliant on the profitability or size of the business but on the extent to which digital technologies can potentially be used.

You need to also think about how difficult and how quick reaching the desired level will be. It's possible to attain levels 1 and 2 in a matter of weeks and

> In practice, the first three levels are suitable for fighting the coronavirus, for example, the last two for building competitiveness.

level 3 in a couple of months. Levels 4 and 5, on the other hand, require such fundamental changes that reaching them will take years. Keep in mind, though, that the time needed for change is only approximate and that every company is unique.

In what follows, I will present some typical measures that can raise your company to the next maturity level.

From Rookie to Intermediate

What does it take to rise to level 2?

Rising from one maturity level to the next is straightforward when it comes to methods and decision-making. The transition has more to do with courage and a change of mindset than challenging development projects. The most important thing is to learn to see digital investments as producers of business value instead of inevitable expenses.

But if digitalization is practically a sure-fire way to boost business, why would a company settle for staying on level 1? There may be several reasons for this, lack of skill being one of them. The company may not have the needed acquisition experience, or it may not have information on reliable operators that fit the company's investment capacity. Possible bad acquisition experiences may put a further damper on the company's eagerness to make improvements.

Self-education is possible but requires effort and in practice running a business doesn't leave energy for much else. There simply isn't enough time. The quickest solution for reaching the next level is to find trustworthy expert partners. A competent partner is able to chart your situation and recommend a solution that is both economically viable and value producing. The rest depends on courage.

In sum, rising to level 2 usually requires
the company to grow its digital footprint
in the market to a competitive level.

Check list

The following presents some practical tips for raising your company to level 2.

- **Commit**
  - Decide that you're going to raise your company to level 2. Stick with your decision.

- **Find a trusted partner**
  - Move from a possible DIY model to a professional supplier.
  - Find out who's been helping your competitors, talk to people you know and take advantage of your networks.

- **Get a well-functioning website**
  - A well-functioning website will grow your digital footprint. This is something you can measure (e.g. contacts per month).
  - A well-functioning website makes use of analytics that have been installed and implemented correctly.
  - A functioning website works in all user environments (tablet, mobile phone, desktop).
  - A functioning website is more than a fresh appearance.

- **Start producing content**
  - You don't need to produce content all the time but fresh content shows your company is alive and wants to develop.
  - You can also buy this as a service.
  - You have several options, such as a blog, a podcast etc. These are usually part of the website.
  - The content you produce attracts new customers to the company (so-called inbound marketing).

- **Make use of social media**
  - Choose 1–2 social media channels that are important to your stakeholders (e.g. the channels your ideal custom ers use).
  - Commit to producing content for them.
    If necessary, you can also outsource your content production.
  - It's not about quantity but continuity.

That's it. If the items on the check list have been implemented correctly and your development is continuous, I can guarantee you a level 2 position.

From Intermediate to Advanced

What does it take to rise to level 3?

Rising to level 3 requires significantly greater investments than the previous level. A level 2 company has already found at least one trusted partner, and the company's digital footprint and marketing are on a good level. The company knows how to acquire digital services but the acquisitions

In sum, a level 3 company invests not only in good findability but also in operative online services.

are often aimed at support functions instead of the core business.

Reaching level 3 requires that digital technologies are used in the core operations of the company.

On level 3, focus needs to change from the company's POV to listening to the customers. What does the target customer expect from the company's online services? Could the company's products or services be bought directly online? If you're a B2B operator, how would your customers like to interact with you online?

The positive thing about reaching level 3 is that the solutions are well known, tried and tested and widely used. If the company is ready to make investments, it needs partners that have experience in and understanding of developing core business operations through digital means. Typical measures include opening an online store and connecting it to the ERP system or setting up a service portal for B2B customers.

It's characteristic to level 3 that digital development investments are discussed on the Board level and in connection with the company strategy. The investments are so considerable that they need advance preparations and are also included in future budgets. The essential feature of level 3 development is continuous and significant investment. Since the products (or product platforms) have been thoroughly tried and tested, budgeting the solutions can be carried out with a professional partner in advance.

Check list

The following summarizes the steps you need to take to raise your company to level 3. Reaching level 3 isn't as straightforward as reaching level 2 but still within reach for most companies. The solutions have been tried and tested, so you can ask a knowledgeable partner to help you find the right one.

- **Design services**
  - How does you customer want to interact with you online? Don't guess, find out.

- **Enable online services**
  - You know what's needed based on customer surveys. Typically an online store (integrated into other essential systems) or an electronic service portal.
  - Acquire the service. Take advantage of existing products (or product platforms) if necessary. Consider your ability to build your own digital heart.

- **Expand your expertise**
  - The core business level requires that you have staff members, who know and want to develop electronic services.
  - Hire an online shopkeeper, CDO or similar and provide training for your staff.

- **Budget for the future**

  - Invest in developing your service.
    This requires continuous metrics
    (Google analytics, heatmapping etc.).

  - Note that even though you may be utilizing
    ready-made solutions that have been tried and tested,
    your development needs to be continuous.
    Budget correctly!

Investments that are correct and appropriately sized will reflect positively on the company's key figures.

From Advanced to Transformer

What does it take to rise to level 4?

Level 4 is the watershed level. Striving for digitalization-related competitive edge requires a total transformation across the company.

Since the change (digital transformation) covers all the operations as well as the basic philosophy and leadership of the company, it requires years of dedicated investment. Even young companies need a lot of skills to seamlessly embed digital technologies into every part of their business. This is a matter of organizational culture and mindset above all else.

The previous three levels were easy to turn into simple guide-lines, but at this stage things get company-specific. By this I mean that fixing a company's online visibility or building a well-functioning online store, for instance, is a pretty straight-forward process that has a predictable end result (even though it requires patience, investments and trusted part-ners).

On level 4, we start to talk about gaining an unfair com-petitive edge.

On level 4, digital technol-ogies are integrated into the company's operations in a painstaking manner. Atten-tion turns to (re)designing the business, and having the

courage to question everything the company may already be doing. In practice, implementing the solutions requires readiness to go for customer-specific and custom-built digital solutions instead of ready-made software or platforms.

Compared with level 3, the end result is more uncertain but the investments are at least as big. It's clear that this doesn't sound very inviting to all companies. On the other hand, the rewards for devel-

opment are potentially a lot greater. Level 4 companies are typically fighting for a top spot in the market or about to get into the fight. The companies are interested in the digital maturity of their field and want to stay relevant.

A company that wants to reach level 4 is ready to play with high stakes in order to succeed. Digital technologies are comprehensively linked to everything the company does, and their implementation isn't forced but strategic.

On level 4, we start to talk about gaining an unfair competitive edge.

Check list

As I mentioned above, it's difficult to give any general recipe for success since on level 4 all great solutions are always company-specific. It's still possible to give an idea of the kinds of decisions and investments that reaching level 4 requires. Unlocking level 4 cannot be guaranteed, but it is still within reach of most companies.

- **Invest in corporate culture**
  - Reaching and particularly remaining on level 4 is difficult without a compatible corporate culture.
  - The culture is a matter of fast-cycle, continuous learning, allowing failure and transparency.

- **Design your business**
  - Boldly question the current state of things and maximize your use of digital technologies.
  - Make sure you engage company-external parties (customers, partners, digital professionals etc.). If you don't, you may miss something essential.

- **Build a digital heart**
  - On this level, one of the central markers of competitiveness is the digital heart, perfectly customized to your operations.
  - Connect the heart to all critical systems.

- **Be patient**
  - Enjoying the fruits of your labor requires years of hard work.
  - The desired market position and the effects on business are future concerns. In other words, don't expect any easy wins but continue developing, measuring and making improvements persistently.

Reaching level 4 will yield handsome rewards. It will cement the company's market position and ensure that the company stays in the digital race as the entire industry undergoes a transformation. I recommend that all growth-oriented companies strive to reach this level at the minimum.

From Transformer to Pioneer

What does it take to rise to level 5?

Reaching level 4 is possible for most companies, but the same doesn't go for level 5. The majority of companies couldn't reach level 5 despite their best efforts. It's worth pointing out that not all companies even want to reach this level.

Those companies that manage to rise to level 5 are able to create something that is unique (in the sector) and implement their ideas expertly. Regardless of the sector, the market cannot sustain many level 5 companies simultaneously [25].

In theory, all level 4 companies have an opportunity to rise to the next level. Level 5 involves the same modern and digital development measures and principles but requires industry-level innovation, greater ability to take risks, a bigger dream and often more significant funding as well.

Between the levels 4 and 5, the biggest differences in the utilization of digital means manifest in the companies' ambitions and in the finishing touches. A level 5 company takes the existence of a digital heart for granted and places more emphasis on how far it can be developed by utilizing things such as AI. The aim of a level 5 company is to stay ahead of others and to create a defensible competitive advantage.

Google and Amazon are examples of how far a level 5 company can go. Good timing – and luck – have surely also played a part in the success of both companies. This doesn't change the fact that both companies have been systematically developing their operations in a digitally-led manner and that they've been making use of ecosystem level innovations for over 20 years straight. For example, it was already in 2002 that Amazon's Jeff Bezos forced his entire organization to start creating services that were built on API-centric solutions [26]. Google's aim to build a self-driving car is representative of the already successful company's willingness to continue innovation on a high level [27]. The companies that manage to remain on level 5 are visionaries that change the way we see the world.

Level 5
is based on
visionary
innovation and
its masterly imple-
mentation.

Check list

Level 5 is naturally the hardest one to reach. It's impossible to give a set of rules for level 5, since the objective is to create something new and to change the world. However, it's still possible to give some general guidelines.

- **Dream big**
  - Make it your goal to become the best in the world from the get-go.
  - Embrace the "all in" mentality.

- **Make radical innovations**
  - Map out the market. It's hard to be the best, if you don't understand what it takes.
  - Innovate something that the market is missing and rethink your entire industry.
    Be critical in your selection.

- **Become the fastest**
  - The highest level often features an "economy of speed".
  - Use all your assets to get your organization learning faster than the rest.

- **Go the extra mile**
  - Take the development of your most important areas to the extreme. When it's good enough, produce it but remember that nothing is ever finished.
  - Collect important data more and faster than every body else. Use artificial intelligence in your development.
  - Harness a digital heart so that it supports your operations 100%. Make your operations the center or most important option of the ecosystem.

- **Let the ecosystem lead the way**
  - Don't settle for what your company staff or customers want; instead, engage all key groups of the ecosystem.
  - Identify and position other operators as partners instead of just competing with them
  - Boost your growth and build a competitive advantage by making use of network effects.

Level 5 isn't for the faint of heart. Fortunately, the principles and regularities of the level can and should be put to good use even if it doesn't result in a world-shaking innovation. A company operating according to level 5 principles is still very likely to be one of the winners of the future.

Selecting a desired level in a crisis and after

T he digital business maturity model presented above is designed to make the selection of development measures clear and straightforward in all operational environments. As I write this, the prevailing situation is an example of an operational environment in which the model can help to clarify methods that a company can use to seek both short-term and long-term solutions.

Level 1 solutions enable practically all companies to consider models that could be implemented to support their operations. For example, testing various social media channels offers a quick and affordable (even free) way of acquiring additional visibility for the company.

However, maturity level 2 is more likely to provide more substantial effects. For example, renewing a website in such a way that it is able to quickly produce more customer contacts can be created very quickly on top of an existing online service. Having informa-

tion on the online visibility of company services in relation to the competitors is beneficial no matter what the situation is.

The government is currently offering support to Finnish growth-oriented companies. For example, the company development services of the Centre for Economic Development offer SMEs external specialist help at the price of 30 euros a day until the end of 2020. [29]

On level 3, it's all about supporting core operations with ready-made software. Setting up an online store, for example, is best done unrushed but the market has a wide selection of quickly implementable SaaS products [30].

I'm going to put levels 4 and 5 in the same category from the viewpoint of exceptional circumstances. Both of them involve extensive rethinking and implementation of a business design. Both are future-oriented and require more substantial economic and temporal investments. For some companies, the exceptional situation provides a particularly good opportunity to aim for the higher levels.

First off, the situation accelerates the rate at which our behavior changes. Remote consumerism is becoming normal. A change in consumer behavior forces the market to evolve and companies to innovate new services. When the special situation ends, those who prepared well will be better off. Some of the things that were forced upon us will remain in practice.

Second, the exceptional circumstances will make it easier to carry through the digital transformation which has been a long time

coming. Customers will accept remote service production and staff members will probably be more motivated to learn remote working skills. Nothing beats compulsion when it comes to getting something done.

Third, the government has started a large-scale coronavirus prevention program, which allows companies suffering from the situation to get a development subsidy that is supported up to 80%. The financing instruments are still finding their form but the message is clear. The government wants to help companies survive and develop despite the current situation.

Partly due to the circumstances, we may now be facing a better chance for making the digital leap than ever before.

Many companies may feel like they're caught in a paradoxical situation. One the one hand, it's now time to push for cost-effective solutions (levels 1–3). On the other hand, now's also the time to prepare for a world forever changed by the special situation (levels 4–5). No matter what your take on the situation is, digital technologies have a lot to offer.

> **"** Partly due to the circumstances, we may now be facing a better chance for making the digital leap than ever before."

Closing words

One of the motivations behind this little guidebook was to raise companies' understanding of what the use of a certain digital solution realistically requires and what possibilities it can open up. In discussions on digital technologies, establishing an online store has often been suggested as a universal cure for all troubles. Electronic services are enough to raise a company to maturity level 3. Reaching level 4 requires the company to have its own digital heart and, in particular, to undergo some changes regarding its corporate culture and organizational model.

The second objective of this booklet was to encourage companies to systematically raise their own digital maturity level and to provide some practical tips for doing so. The third aim was to highlight the fact that special situations can paradoxically provide an excellent opportunity for reaching for one of the two more ambitious maturity levels.

The most important objective was to clear some of the mysticism surrounding the development of digital business. Development work is not rocket science, and every company has the opportunity to raise their own level when it comes to digital maturity. Digital solutions are meant to be enjoyed by companies of all sizes, ages

and types. It all boils down to the company's willingness to make the necessary changes, and the transformation can be accelerated by inviting outsiders to critically assess the company's business operations. Identifying the soft spots as well as the opportunities that show promise are the first steps in initiating change.

I wish all companies a happy journey into digital maturation!

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