White paper on managing and measuring corporate business resilience in times of crisis and in times of no crisis

FROM THEORY TO PRACTICE:
CONCEPT, METHODS, TOOLS, AND DATA SOURCES

Valior d.o.o.
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Introduction

Simply put, the second law of thermodynamics states that entropy always increases in a system that is left to itself. Entropy as a measure of disorder is putting companies to the test every day. But good management is responsible for "constantly regulating the system".

In today's world, where VUCA – volatility, uncertainty, complexity and ambiguity – rule, it is more important than ever for us to understand our system well, especially our company's strengths and weaknesses. This is the only way we are able to respond to shocks appropriately.

The importance of understanding ourselves has been part of the ancient knowledge of all wise men. If I know myself, have a deep understanding of who and what I am, nothing can bring me out of balance, I am untouchable and always go in the right direction, no matter what.

While preparing the demanding content about business resilience, we relied on various economic practices, above all: risk management in banking, consultation on the preventive optimisation of companies, the strategic renewal of companies, and the crisis responses of companies in trouble. We are very factual in our efforts to understand business resilience. We have set measurable indicators and clear assessments.

We know from experience that companies usually take on the necessary changes too late or with too little ambition. With an in-depth insight into concept of business resilience we would thus like to motivate companies to devote to self-research and set out correct measures for themselves to have even more successful business operations in the future, which would be less stressful for everyone and less susceptible to increased chaos. (Unfortunately) no one can predict the future. But there is a saying that the best way to predict the future is to create it. Are you ready?

Know yourself, know your enemy. A thousand battles, a thousand victories.

— Sun Tzu, The Art of War

Domen Prašnikar

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1. Business resilience in times of crisis

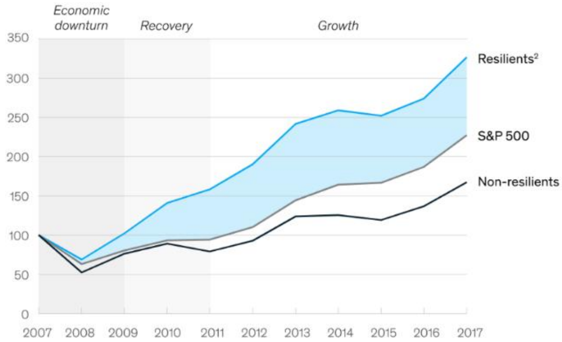
From an economic perspective, a crisis exposes the weaknesses of systems, industries, and companies. In order to solve this crisis, which is not necessarily only economic, but also a social and healthcare crisis, we are forced to reach for measures which are difficult and painful. Such measures can mean giving up or reducing our standard, changing our lives and methods of work, and they also show that radical improvements are necessary.

To improve something radically means especially to innovate and follow our objective, that something works better, easier, faster, and as a result gives us a greater benefit and a better (material) foundation. This way we become less vulnerable and more resilient. Resilience holds an important meaning in times of crisis – with greater business resilience we shall not only survive the crisis, but shall come out of it even more successful.

Innovation, which is thus an important component of business resilience, proves its value especially in times of crisis, when people are forced to solve something in a new way and discontinue something old. A good example is the accelerated digitalisation of sales routes at the beginning of the Covid-19 pandemic.

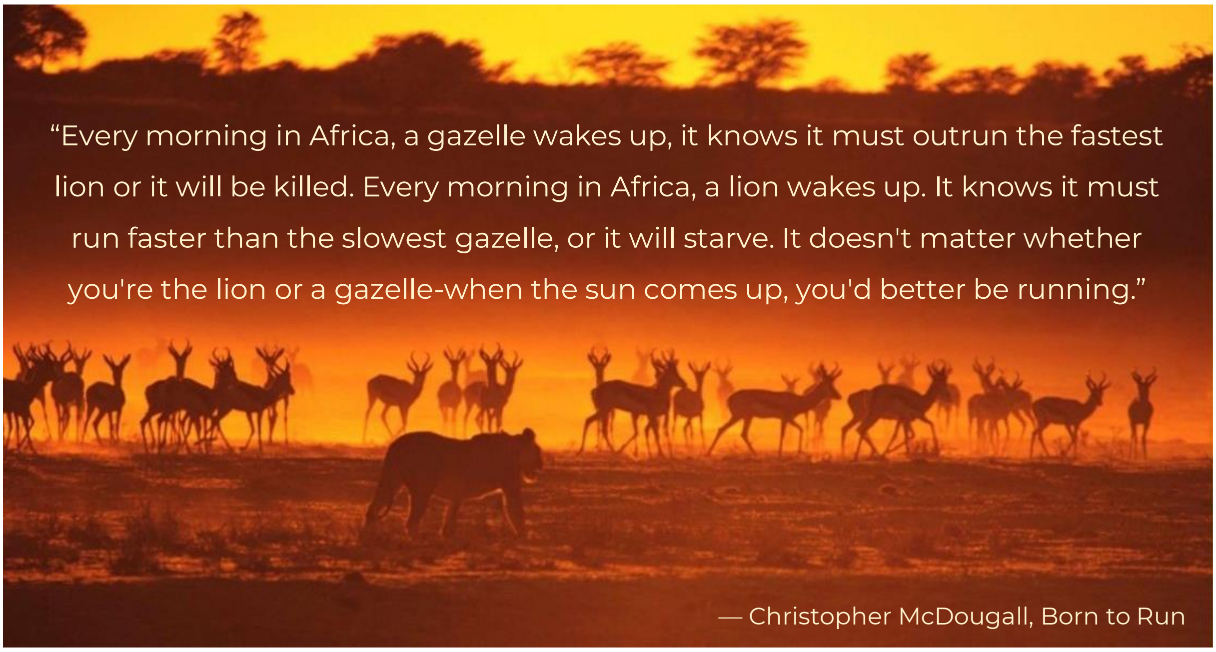
Digitalisation projects, which were progressing very slowly before, taking several years, suddenly became vitally important and were implemented very rapidly.

In the longer term it has turned out that companies are stable and that the onset of "crisis" does not impact them critically. In times of crisis, companies with a greater business resilience tend to increase their advantage over other, less resilient



companies.

Diagram: Growth of resilient companies in times of crisis and after crisis | Source: McKinsey & Company (https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/bubbles-pop-downturns-stop)



2. Understanding business resilience

The concept of "business resilience" has become very popular in the past few years. The number of scientific and expert articles studying and explaining business resilience has grown exponentially in various research fields, such as business and organisational, social, urban, personal, human, ecological, and disaster research-related fields.

In the past, people were already thinking about business resilience, but have used different names for it, such as: risk management, business continuity, disaster planning, etc. The concept of business resilience is wider, as it includes all the above-mentioned elements as well as strategic, organisational, commercial, and financial aspects.

Therefore it is not surprising that there are diverse, ambiguous or even conflicting viewpoints related to the use and definition of business resilience. One EU research lists over 300 different definitions of business resilience, which indicates the lack of (1) clear formulation or understanding of business resilience, and (2) lack of unity between various (economic) agencies and institutions.

Therefore our research, measurement, and explanation of business resilience is based on years of our own practical experience in the field of business, organisational, and financial sciences, taking into account the most convincing knowledge of renowned experts (their projects and studies).

Within our concept of business resilience, we thus understand that a resilient company firstly has the ability to detect, predict, and understand future events in its environment as well as inside the company. When a resilient company recognises that something would or could vitally change and have an important impact on its business operations, it has a better ability to adapt to those changes in the environment, not only for mere "survival", but also for quicker recovery and the creation of an advantage on the market.

We could sum up the concept of business resilience in the following definition:

> Business resilience proves itself in difficult circumstances, when it is urgent to adapt to changes in the environment, not only to preserve the company or reduce its vulnerability, but also to create an advantage on the market and recover more quickly.

Business resilience is built on an integrated control of numerous, especially soft, elements in a suitable combination. Sound finances do not contribute much to long-term business resilience if the company does not have a clear strategy, responsive organisation, motivated employees, research and progress via development, diversification of sale and procurement as well as broader inclusion into the environment. As no one can accurately predict the future and as, in a world of increased instability we have to face unknown risks, it is vital for a company to manage the complexity, interdependence, systemic thinking, and especially foster a long-term perspective.

Only resilient companies constantly regenerate, survive and succeed in the long run.

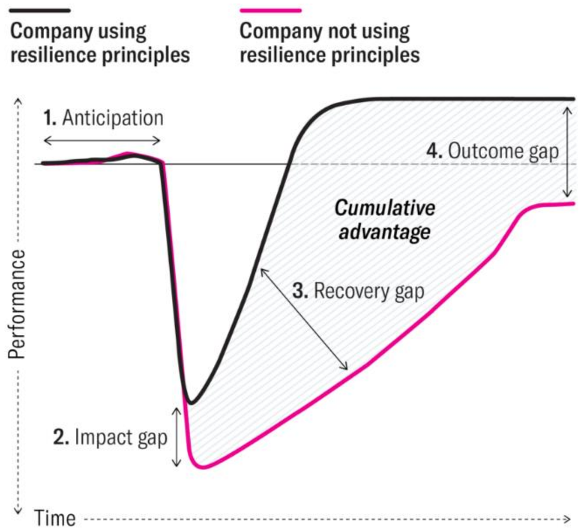


Diagram: How a resilient company comes out of crisis compared to an unresilient one
Source: Martin Reeves (https://hbr.org/2020/07/a-guide-to-building-a-more-resilient-business)

Principles of business resilience

Mental attitude and actions following the logic of business resilience could be summed up by the principles of resilience. The principles listed below are commonly accepted in the economic profession, while the principle of "adaptability" is usually the one that sums up and defines a company's business resilience the best. Companies can use the principles of business resilience at the level of planning and operations, as well as at the level of organisation and decision-making.

Principle	Definition
Adaptability	The ability to evolve through trial and error with the objective of a successful response to changes in the environment and circumstances. It includes striving for adaptation, learning, and best solutions.
Diversity	Helps to reduce "vulnerability". Diversity is obtained by width of operations and by employing people from different backgrounds and with different cognitive profiles.
Circularity	Nothing goes to waste (everything useful is used). Self-sufficiency is increased, energy and material efficiency is maximised, knowledge and skills are used in new areas.
Modularity	Allows individual elements to be "removed" without the whole system collapsing.
Prudence	Due to the principle that "if something could plausibly go wrong, it eventually will", contingency plans, stress tests, scenario planning, etc. are developed.
Redundancy	Duplicating elements that achieve the same end or function, so that we do not "carry all the eggs in one basket".
Embeddedness	Alignment of a company's goals and activities with those of broader systems (integration into supply chains, business ecosystem, society).

Table: 7 principles of business resilience

Adaptive capability

Adaptive capability is defined as the ability of a system or company to respond to changes and completely unknown risks, to change its circumstances, and move to a stable state. A company is able to change its strategy, business model, operations, organisation, the ability to make decisions, and to withstand disrupting events.

3. Business resilience vs. effectiveness

Business resilience and effectiveness are not direct opposites, but focusing too much on one aspect can negatively affect the other one. Companies primarily optimise effectiveness, as this leads to increased competitiveness, but in extreme cases, this can lead to instability and excessive vulnerability of the system.

Key areas where it makes sense to maintain the right measure of effectiveness and at the same time business resilience are: providing diversity and the ability to learn, providing a healthy extent of growth and self-sufficiency, reducing vulnerability (dependence) to third parties, care for greater inclusion and welfare of the system, the "golden reserve".

Determining the right measure of business resilience and effectiveness of a company can also be understood within the concept of "acceptable risk tolerance". This reflects in acceptable differences in results (performance criteria) according to the set objectives of a company.

Examples of company objectives which are typically subjected to an acceptable level of risk are: income growth, profitability, market share, customer satisfaction, earnings per share, etc. For these objectives it is good to think about which results above and under the objective would be acceptable.

For example, the "customer satisfaction" objective is closely related to "business resilience", as satisfied customers mean greater business resilience for a company, as well as to "effectiveness", as at a certain point, increase in customer satisfaction does not bring any more added benefit to the company and can even become cost in-effective.

A company can set a satisfaction objective at 90%, while allowing for (an acceptable level of) results between 85% and 95%.

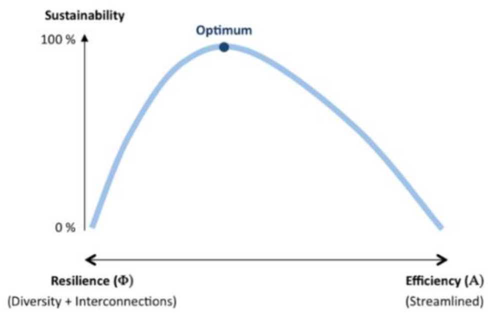


Diagram: Business resilience vs. effectiveness

4. Measuring business resilience

Valior d.o.o. has been engaged in business resilience research and company measurement since 2018, with the prediction of a coming crisis. The crisis came, more obstinate and completely different than the world expected, as it is first and foremost a medical crisis that also has exceptional economic and social consequences.

By deepening our research and measurement of business resilience, we continue our mission to support companies in dealing with all these new circumstances.

So far, we have already attracted over 100 companies and key managers to participate in the extended resilience measurement research. Based on a comparative analysis we have established that the sample of all assessed companies is representative according to the following criteria: industry, company size, and financial credit rating. The comparison data is aggregated and anonymous.

Measurement has been conducted via an on-line questionnaire with 49 questions, to which 21 indicators from publicly accessible data were added (GVIN, AJPES, bizi.si, websites of participating companies). Based on a total of 70 indicators with adapted weights, we calculate your assessment and provide comparisons with other companies.

When performing the measurement, we focus on 9 key areas of the company's business operations and take into account the established standards of best financial, business, organisational, and leadership practices.

Our measurement and assessment of corporate business resilience can vitally help to:

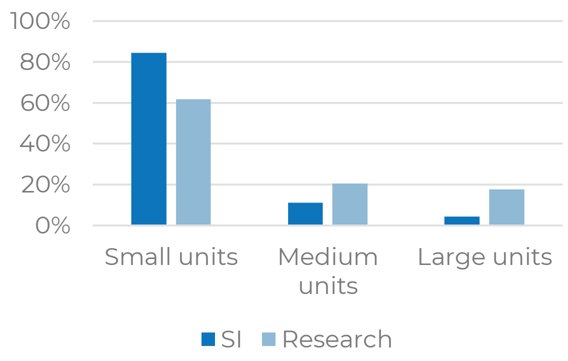
- Provide progress in the direction of greater resilience,
- Understand how business resilience improvements lead to greater competitiveness,
- Manage resilience indicators which demonstrate the readiness of the company for the "future",
- Understand why investment into business resilience is justified or even urgent in terms of business.

A balanced sample

An important mission of the research was to obtain a representative sample of participating companies, adequately reflecting an integral picture of companies in Slovenia, while recognising that the questionnaire used is not ideal for micro-companies, companies with a turnover under EUR 0.5 million, or less than 5 employees, as well as companies whose business activities are classified under B, K and from O to S marks.

3 criteria were selected to balance the sample of companies participating in the research.

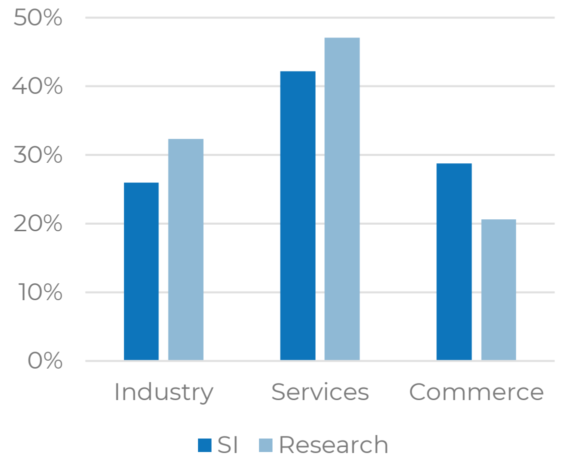
1. Company size



Graph: Distribution of companies according to size, the number of companies in SI and research in % | Source: AJPES aggregated statistics according to business activities and sizes for 2019 and our own research

There was a greater share of medium-sized and big companies participating in the research. Micro-companies (with less than one employee and 100 thousand Euro of income) were excluded from the research as, due to their size, they typically do not have the need for an in-depth implementation or management of certain functions, such as human resources, research and development, etc.; functions that are important for measuring and understanding the business resilience of a company.

2. Business activities



Graph: Distribution according to segments of business activities, the number of companies in SI and research in % | Source: AJPES aggregated statistics according to business activities and sizes for 2019 and our own research

The research included a greater share of companies from the fields of industry and services. Companies whose business activities are classified under B, K and from O to S marks, were excluded from the research, as their operation is very specific and therefore generally incomparable outside the framework of their activity.

3. Financial credit rating of companies

Graph: Distribution according to the credit rating of companies, the number of companies in % | Source: GVIN Bisnode and our own research

The research included a greater share of A- and B-rated companies than usual.

A comparison of the sample of assessed companies to that of the whole of Slovenia demonstrates a relative comparability, while the sample of assessed companies probably indicates a greater business resilience of companies than the one that would be measured for Slovenia as a whole. This can be concluded especially when sampling on the basis of company size and financial credit rating. Medium-sized and large companies have a slightly greater business resilience compared to small companies. Furthermore, the sample includes a greater number of A- and B-rated companies, for which a greater business resilience is calculated due to their greater financial soundness.

We would like to point out that our research has the greatest comparison value among companies that participated in the research, and less when determining business resilience at the level of the total calculation or the result, from which some general conclusions related to business resilience can be drawn, which are presented in the "Measurement results" section.

Business resilience measurement areas and determination of weights

Business resilience was measured in 9 areas of company business operation, for which we believe they have all aspects of business operation integrated. Within an individual area, we have selected indicators based on which it can be distinguished if a company operates in a way that makes it more or less resilient.

Due to the specificity of the crisis related to Covid-19, (this) measurement of business resilience took into account the aspect of government intervention (taking into account measures from PKPs - anti-Covid-19 packages), which we understand as "artificially" added resilience if the company received help based on the PKP measures.

Additionally we have determined an appropriate weight (importance) for every individual area, as we believe that areas do not reflect the business resilience of companies equally, instead certain areas contribute more to the business resilience and other areas less.

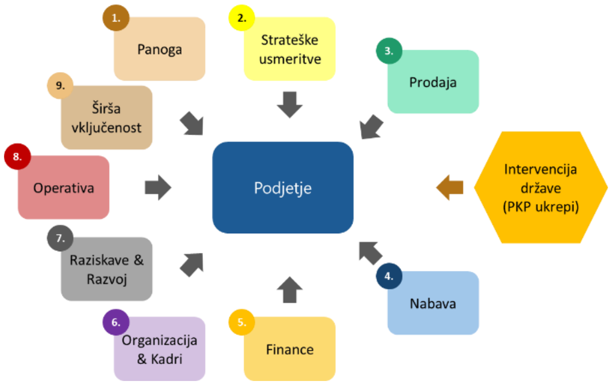


Diagram: Areas of business resilience testing

Areas	Number of indicators	Common weight
Strategic directions	3	7%
Finance	12	24%
Sales	16	19%
Procurement	6	8%
Organisation and human resources	8	17%
Operation	6	8%
Research and development	3	7%
Broader inclusion	3	5%
Industry	4	5%
TOTAL	**61**	**100%**
Government intervention (PKP packages)	4	13%
Question: Would you like to add anything	1	0%
Covid-19 activities	4	0%

Table: Areas of business resilience measurement, the number of indicators within individual areas, and common weight in %

For every indicator in an individual area, a question was asked with answers provided to choose from (three to five possible answers), demonstrating the level of control over the indicator, which the question relates to, and the area as a whole. When preparing possible answers used to check the level of control over the indicator or area, we have taken into account the established international standards of the best financial, business, organisational, and management practices.

The companies have answered 49 questions, the remaining 21 were answered by Valior (ratio 70% : 30%), meaning that the assessment comprises primarily indicators based on the answers by the company, as well as indicators which are based on the Valior expert review.

Theoretically the company that would achieve the highest possible number of points for all answered questions, thus achieving 100% of set weights for an individual area, would be 100% resilient.

In practice, a completely (100%) resilient company does not exist and the same goes for a completely non-resilient company (measurement result of 0%), as a company would go bankrupt before its business resilience would fall to 0%.

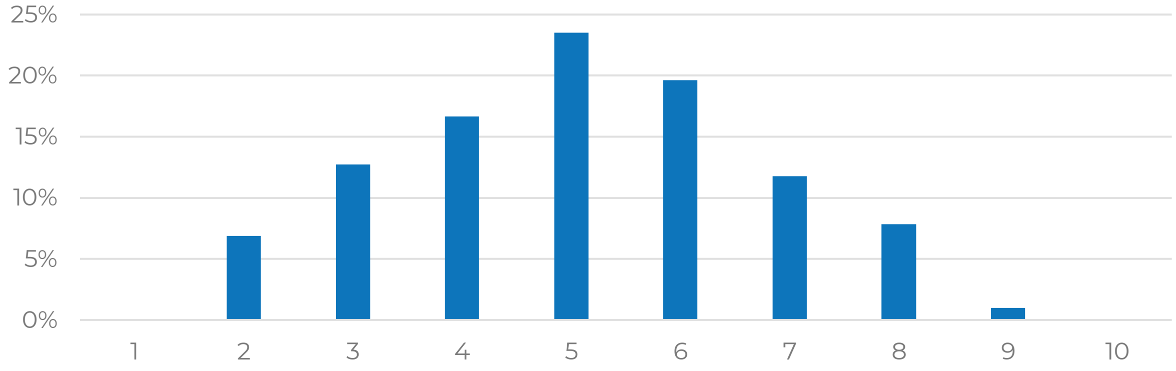
Taking into account these extremes between reaching 100% and 0% business resilience, resilience assessments were adapted appropriately. Business resilience index ranging between 0% and 100% has thus been converted to a business resilience assessment from 1 to 10.

Result scale in %	Assessment
0-39	1
40-45	2
46-49	3
50-54	4
55-59	5
60-64	6
65-69	7
70-74	8
75-79	9
80-100	10

Table: Result scale for business resilience measurement in % and the associated assessment

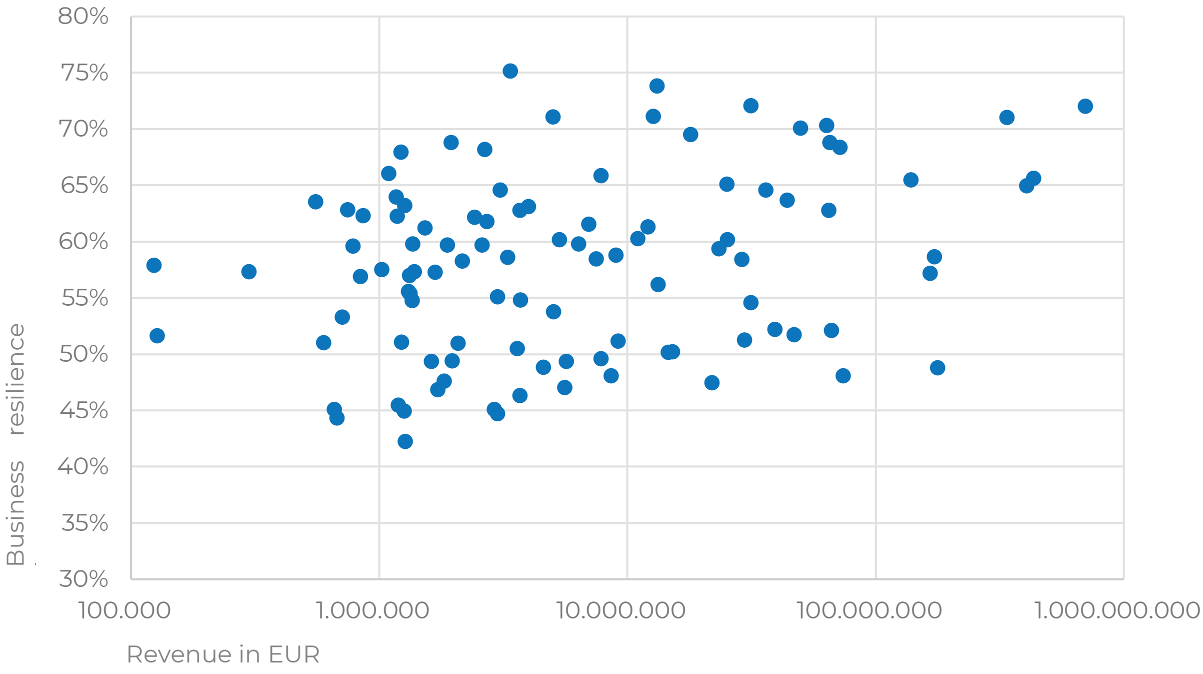
Measurement results

The result of business resilience measurement at the level of all companies has shown a typical distribution of companies in the form of a normal distribution with the greatest share of companies with good business resilience and a smaller share of companies at both extremes, namely with very poor or very good business resilience. The median value as an average value of the measured business resilience index amounts to 58%, which translates to a total average assessment of 5.



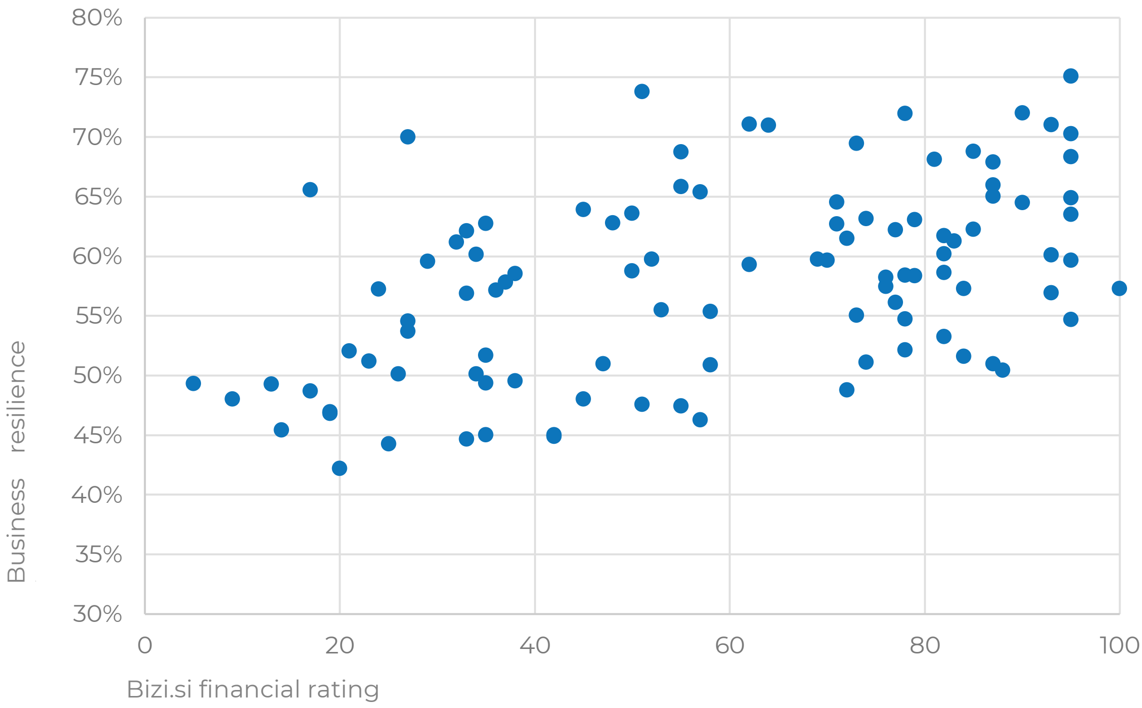
Graph: Distribution of business resilience assessments of all assessed companies, in %

Trying to understand the results of business resilience calculation, we additionally wanted to know, how business resilience was affected by size (revenue in EUR) and financial credit rating of a company (BIZI Financial rating) via correlation calculation.



Graph: Correlation between business resilience and company size

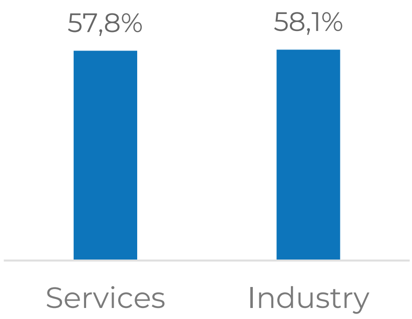
The correlation calculation gives a result of 29%, which means a relevant and important correlation (a very important correlation is determined by a result greater than 60%).



Graph: Correlation between business resilience and a company's credit rating

The correlation calculation gives a result of 46%, which means a relevant and important correlation (a very important correlation is determined by a result greater than 60%). It is important to emphasise the difference between a financial rating (in Bizi.si it means a static part of the credit rating which does not change during the year) and a business resilience assessment. The financial rating is calculated on the basis of quantitative data from financial statements for the past three years, with the biggest emphasis on financial security, profitability, efficiency, success, and cash flow. The credit rating of a company in simplified terms measures the probability of a company to go bankrupt. The business resilience assessment on the other hand, additionally to the financial state of a company, places great emphasis on the already mentioned "soft" factors, primarily measuring the ability of a company to respond to a greater crisis or shock, with a company's perspective directed towards the future.

We have also determined possible differences in business resilience between the segments of industry (Standard Classification of Activities from B to D) and services (Standard Classification of Activities from E to N).



Graph: Business resilience of companies according to their classification into the segments of industry or services

The differences between segments are minimal in the total calculation. The in-depth overview shows greater differences only between the segment of procurement and the segment of research and development. In the latter, companies from the industry segment are more resilient, while in the field of procurement they are less resilient.

While establishing that the differences between the segments are minimal or that no fundamental differences are demonstrated, no special comparison of a company to its directly comparable competitors or industry in which the company operates is required. At this time the sample of assessed companies is not large enough (yet) for the comparison to be statistically significant, as we need at least 30 more companies for a relevant comparison. It is thus better to lean on all companies in the comparison. We must also take into account that companies have e.g. good or poor finances independently of the industry they operate in, and the same goes for almost every other area. Thus the excuse "it is different for us" is not very convincing.

Comparative analyses

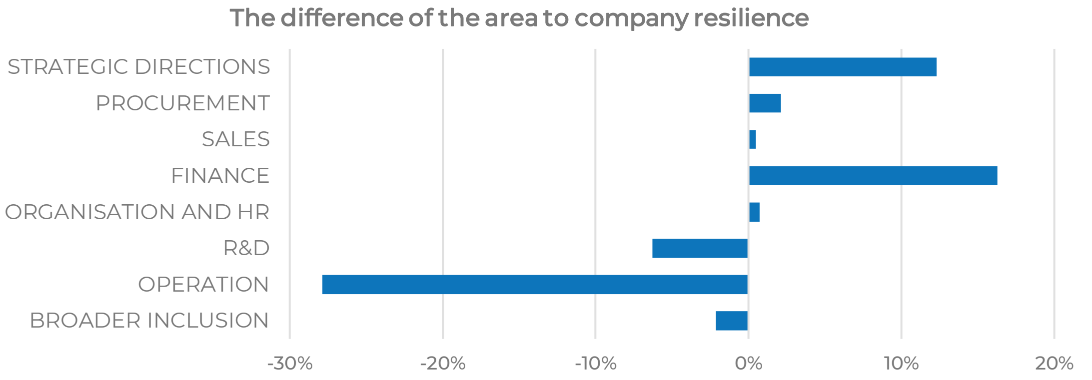
We believe that our research provides the greatest value when conducting a multi-level comparative analysis of a selected company:

a. Firstly to understand the deviation of a company from the calculated medium resilience according to individual areas. Individual areas increase a company's resilience – they are calculated above the company's average business resilience, while other areas decrease the company's resilience – are below the average business resilience. Thus the company gets a clear insight into which areas are problematic for them and present the greatest opportunity for increasing their business resilience.

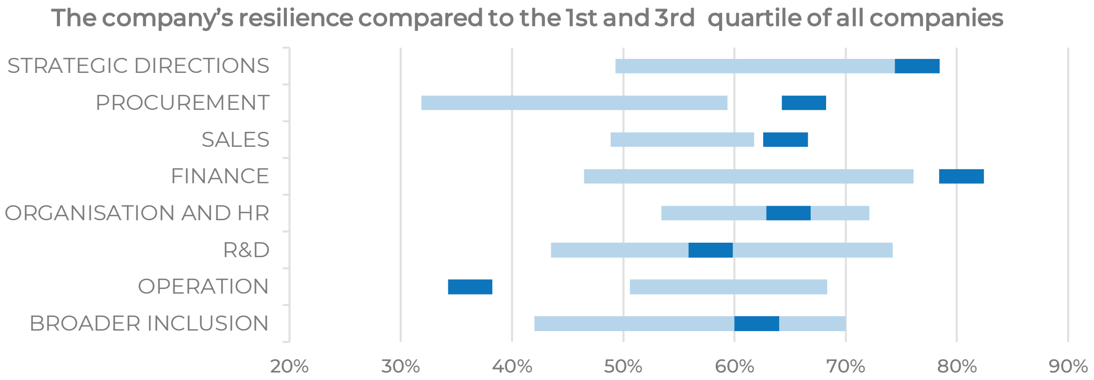
b. Similarly we can compare a company's business resilience according to individual areas based on the 1st to 3rd quartile (25% to 75% of percentile) of calculated business resilience for all assessed companies. Thus the company obtains a wider insight and comparison, demonstrating its resilience compared to other companies, and additionally signal which area is problematic and represents an opportunity to increase their business resilience.

c. Potential for change in years is calculated next, representing the number of years that it would take for a company to achieve the highest grade. Based on the self-evaluation of a company according to individual questions, it is possible to calculate the difference to the answer that represents the highest level of resilience. This difference is then combined with the evaluation of the required time (based on our experience) that it typically takes for the company to achieve the required progress and raise to the new level of improved operation. This way the company gets an additional signal of how much effort and time will have to be put into improving the business resilience. In general, companies with lower business resilience shall require more time to rank at the top – but on the other hand they also have a greater potential for improvement. But precisely due to the difference in importance, weight and assessment at the level of 70 individual indicators within all areas, this does not hold completely: two companies with the same assessment can have a different length of change potential in the number of years.

d. A balance indicator is also calculated, demonstrating the balance of areas. The balance scale is between 1 and 5 (1 meaning the least and 5 the most). The company gains an additional understanding about whether it is generally poor or good in all 9 individual areas (has a balanced assessment over all areas) and if the company has a top setting of certain areas (thus having a poor balance). This index is measured with a simple calculation of standard deviation of resilience calculations according to different areas.



Graph: An example of a comparative analysis "Difference of the area to the company's business resilience"



Graph: An example of a comparative analysis "The company's resilience compared to the 1st and 3rd quartile of all companies"

Subjectivity of the assessment and agreement of the company with the given business resilience assessment

The fact that self-assessment is always subjected to a certain level of subjectivity must be taken into account, as this may(can) result(-s) in more "optimistic" or more "conservative" answers. The subjectivity factor cannot be completely eliminated as the majority of indicators was calculated based on the company's answers (a smaller part on the side of Valior, where we had the same standards for all companies).

At the same time it must be taken into account that half of the weights (12.5% out of 24%) for financial indicators come from the previous year (2019) and the real financial picture of the company could be fundamentally different by the end of the year (2020) . This effect is not detected in financial indicators, related to the previous year.

The Covid-19 epidemics had an enormous effect on the dynamics of change in various industries (in the financial and business sense) – in both extremes. Positive changes in the conditions of the Covid-19 epidemics were experienced, for example, by companies conducting activities related to digitalization of services, on-line sales, on-line gambling etc. which could have a successful business year despite normally demonstrating a poor business resilience. And vice-versa: negative changes in the conditions of epidemics were experienced, for example, by companies in the hospitality sector, who had a bad business year irregardless of possibly demonstrating a high business resilience otherwise. Therefore, for such companies that were extremely (positively or negatively) impacted by the events in their industry, a question is raised, how much more successful they would be if their resilience was higher, or how much worse it would be, if their business resilience was even lower. Thus it must be understood that the subjective view of a company's condition and also its current financial situation does not necessarily reflect in the assessment of its business resilience.

Taking into account the above-mentioned, a comparative analysis can indicate a higher or lower assessment of a company than it could be objectively. At the same time the company might not agree with the given assessment. Notwithstanding, a company can draw useful conclusions by comparing different areas within the company, where an internal picture of the company is evident.

The method and approach which a company uses to increase its business resilience (according to individual elements), is a mater of activities and projects for improvement. The "Raising resilience" section contains a short description of the logic and different approaches to initiatives for raising a company's business resilience.

Note: In the appendix to this document, you can find a sample business resilience report combining all crucial comparative analyses, which a company receives after business resilience measurement.

Key findings

When calculating business resilience, we have found that there are several sources which can explain why there are differences between companies with poor and good business resilience. A simplified explanation that a company has a high business resilience based on its size (by income) or high financial credit rating (A) is not possible.

Business resilience is dependent on the combination of "hard" factors (i.e. company size and financial credit rating) as well as "soft" factors, including elements related to the prepared strategic directions of the company, the level of managing employee success, and continued research and innovation by the company.

Additionally to the size of weights for individual areas in the total assessment calculation we can get a very good insight into the relevance of individual areas by calculating the correlation between an individual area and the company's business resilience.

Area	Correlation
Strategic directions	54%
Industry	23%
Procurement	28%
Sales	52%
Finance	68%
Organisation and HR	55%
R&D	46%
Operation	27%
Broader inclusion	44%

Table: Correlation between an area and a company's business resilience

Strategic direction demonstrates a high correlation to a company's business resilience. When a company has prepared a strategic direction which it regularly monitors, when it manages to realise everything that was strategically planned, and when a great portion of the company is included, this means good business resilience.

Sound finances are an important foundation of business resilience, probably the best shield from danger to the company when it finds itself in a business environment with late-payment culture and limitation of loans (by the banks). They are important for business operations development, new investments, liquidity, potential take-overs, etc.

Very high on the scale of areas that have an important contribution to a company's business resilience are the organisation and human resources, which is not surprising, as the responsiveness of the organisation, processes, and people (their motivation) hold important contributions to the company's adaptability to new (crisis) conditions. When a company's organisation reflects the method of operation that the market (customer) demands and expects, has its priority synchronised at the level of the company as well as at the level of employees, is open for talent and its development, and manages to establish open communication at the level of the entire company, the company creates the internal conditions that make it flexible and adaptable.

A company achieves progressiveness and innovativeness by constant research and development. Progressiveness and innovativeness are not meant only within the meaning of using new technology and developing new products but are also understood as progressive knowledge, progressive execution of processes (operations), or an advanced business model with a new approach on the market. Thus an important part of business resilience is related to continued research and understanding of the industry, trends, and opportunities, that something new happens every year. This way the company's portfolio of products or services is well balanced between "flagships" and those that will (smoothly) take over leadership in the future.

A company's business resilience which is related (correlated) to sales is somewhere in the middle of all listed elements. The fact is that it is difficult to achieve good business resilience in sales, whereas the way the sales function in a company is already determined by the industry it operates in. The business resilience of sales typically means that the company controls a good market share, branched after-sales channels, the number of markets (and customers), customer management, and last but not least products and services that hold a higher value for the customer. The fact is that not every industry offers this set of opportunities for the company to succeed and build resilient sales.

Greater inclusion of a company into its social community, interest groups, environment protection, welfare, etc. is something that does not directly provide tangible and measurable results or benefits for the company, but it solidifies it in the sense of "united we stand, divided we fall".

A small correlation is recognised in the fields of procurement, operation, and industry.

Business resilience is thus built on the integrated control of many areas. Sound finances do not contribute much to long-term business resilience if the company does not have a clear strategy, responsive organisation, motivated employees, R&D, diversification of sales and procurement as well as broader inclusion into the environment. Vice-versa is also true, of course.

Other knowledge and lessons from the research:

a. An (already) established minimal difference between the segments of industry and services.
b. A correlation between business resilience and government intervention (PKP packages) is poor and negative (–16%), as expected. The intervention has raised business resilience by 10% on average, mostly in the hospitality industry (4-times more than in other industries), as expected.
c. We have eliminated some indicators ex-post, as we have come to the conclusion that they are not relevant, do not provide a sufficient dispersion of answers, or that the disposition of answers went in the direction of "overoptimism" by respondents (indicator: the number of years of operation, days of transaction account blockage, unpaid tax liabilities, supplier changes).
d. The questionnaire is the most suitable for the profile of a production company with over 50 employees. It is least suitable for smaller service companies that do not need a lot of assets (business premises, current assets) for their operation.

Response of companies to Covid-19

In the research, we have additionally measured the responsiveness of companies in dealing with the Covid-19 crisis. A line of questions was asked in four sets. Each set represents a time component of the response.

The first set "Activities for 'critical' resolution of company operations" asks about the first response in critical resolution when facing the crisis.

The second set "Activities for creating and implementing 'creative' solutions" asks about the development of quick and smart moves as a response to opportunities that arose due to the Covid-19 pandemic.

The third set "Activities for the optimisation of existing business operations" asks how the company has expedited improvements that it was already active on before the Covid-19 pandemic, either because it was forced to do so or because a special opportunity arose.

The fourth set "Activities for creating fundamental innovation in order to adapt to the new reality" asks about fundamental movements that the company has set out in accordance with the new reality due to Covid-19.

In the first set, companies (understandably) responded by adapting the organisation of work and establishing a safe environment. The need to conclude new (adapt existing) agreements with suppliers and customers was less important.

In the second set, companies responded mostly by identifying opportunities provided by the new (Covid-19) situation, and less with the next step of realising these opportunities.

In the third set, companies mostly focused on improvements that they had already planned in the past. We assume that improvements had to be expedited due to the recognised urgency.

In the fourth set, companies most intensively started thinking about and trying to understand the new situation and fundamental movements in the industry that would (probably) happen.

In general, we can determine that activities that the companies mostly reached for in the new Covid-19 situation were part of an "urgent" reaction and not so much a "proactive" action. Carrying out activities that are mostly "proactive" in nature and content is a sign of greater adaptability and consequently higher business resilience.

Government intervention (PKP packages)

When measuring business resilience, we have also added a separate part with questions for companies which were related exclusively to the use of measures from the PKP packages. This was the only way for some companies, which were most affected by the lock-down, to survive. But for some companies these measures only meant an extra plus to (cost) optimisation. Our understanding of the government intervention with PKP packages is such that this represented an "artificially" added resilience (a resilience respirator).

The most used PKP measure (used by 36% of companies) was wage compensation for employees. PKP measures related to deferment of payments to state authorities, to moratoriums on loans or to extracting fresh money via various schemes were used in a negligible share (from 12 to 13%).

PKP measures were mostly used by companies from industries related to hospitality, commerce, and tourism. But the calculation of correlation between the use of PKP measures and the business resilience of companies shows that the correlation is very low (–16%), which is an interesting discovery. By rule and in an ideal world the help would be directed towards weak companies or companies with poor business resilience, but instead the help was received by all companies, irrespective of their level of business resilience.

5. Raising business resilience

A company's robust processes and financial soundness alone do not suffice for successfully dealing with the (new) uncertainty. In today's uncertain environment, we also cannot focus exclusively on building our defensive strength.

The defence must be tactically supplemented with measures that strengthen business resilience. A company's business resilience is crucial for adapting to and succeeding in new circumstances.

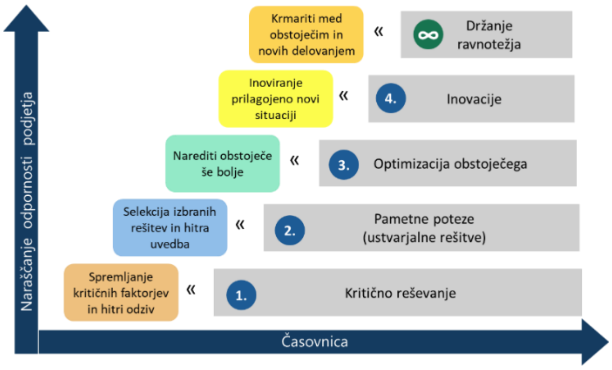


Diagram: The path of increasing business resilience

How to recognise if a company is in (real) trouble:

a. Liquidity problems arise which lead to deterioration in settlement of liabilities to suppliers, tax liabilities (which inevitably lead to a blocked current account), liabilities to banks (which reduce the credit rating and lead to restrictive treatment), and, last but not least, unpaid labour costs, which greatly affect the morale in a company and willingness to work. In the end, this leads to compulsory composition, bankruptcy, potential law-suits, liquidation, and striking a company off.
b. Impairment of sales channels and access to buyers, reduced success of sales (conversions) by reducing the number of buyers and market share, reduced competitive position, reduced customer satisfaction and trust in the trademark (or company).
c. Talent starts leaving the company, the rewards for success are reduced, which decreases the motivation to work (progressive performance on the market, efficiency of work, innovative thinking, etc.). As absence from work increases, it is difficult to embrace new challenges, the feeling of community and unity disintegrates, communication in the company becomes out of tune and unheard, it becomes difficult to follow the directions of the management.
d. The more a company is dealing with its own problems, the less attention it pays to what is going on around it, the less it understands its environment, trends, latest innovations. Thus it loses momentum and the capacity to innovate itself. Products and services that are offered keep nearing the end of their service life.
e. Operative performance begins to worsen, which is demonstrated by an increased number of deficiencies and faults in production or execution services, the deliverability or timeliness of services is worsened, which leads to increased customer dissatisfaction and related high costs.
f. In the end, the company is recognisable as the one player in the industry whose work is poor (has a bad reputation), therefore it finds it difficult to engage partnerships, join networks, and connect to interest groups.

The spiral of problems that the company can find itself in must be stopped. Business resilience must be set as the strategic initiative that is supported at the highest level of organisation. Considering the fact that raising business resilience is a journey that takes several years and demands a structured and consistent approach, a formal vision must be formed which is based on principles and directions of business resilience.

A company can set business resilience as its fundamental competence and business imperative, and integrate business resilience into all its crucial business areas.

The business resilience of a company increases in stages. The first responses related to critical salvaging when facing a crisis are important as well as all further steps that set off expedited improvement and innovation by the company.

The art of holding a balance between a company's activities which require "defence" in order to preserve the existing and at the same time "offence" to conquer new opportunities, and between maintaining "routine" that ensures continuation and at the same time "dynamics" to create smart new solutions.

Dedication to adaptation is the best jumping board for achieving good resilience.

Diagram: The circle of continuous learning on the path of raising business resilience

Here is a collection of principles for implementing business resilience in a company.

1. **Efforts for business resilience at the level of the entire company**
   The entire company must be committed to strengthening business resilience. It is necessary to understand dependence (inside and outside the company) and the potential vulnerability of each area (function).
2. **Building culture**
   Establishing a way of thinking (understanding) from the perspective of business resilience. Promoting mutual consistency and common goals. Surpassing the "status quo" and promoting continuous learning and creative thinking.
3. **Business resilience management**
   Business resilience management is embedded into the management structure. Appropriate procedures (policies) are formed, planned and realised business resilience measures are monitored, priorities and financing are established.
4. **Transparency and measurability**
   The use of an extensive set of metrics and business indicators for measuring business resilience results and progress reporting.
5. **Elimination of unnecessary complexity**
   Eliminating or avoiding unnecessary complexity by reducing contact points, eliminating intermediaries, using industry standards and practices instead of proprietary solutions.

This White Paper is also intended for the promotion of dialogue and discussion on the topic of resilience. **We would therefore like to invite you to share your comments and feedback with us.**

We would like to take this opportunity to give special thanks to the Valicon research company for co-operating in this project and directing us in the statistical processing and interpretation of data.

Contact us if you would like to obtain an in-depth and unique insight into the business resilience of your company and potential measures for its increase. We would be happy to help you.

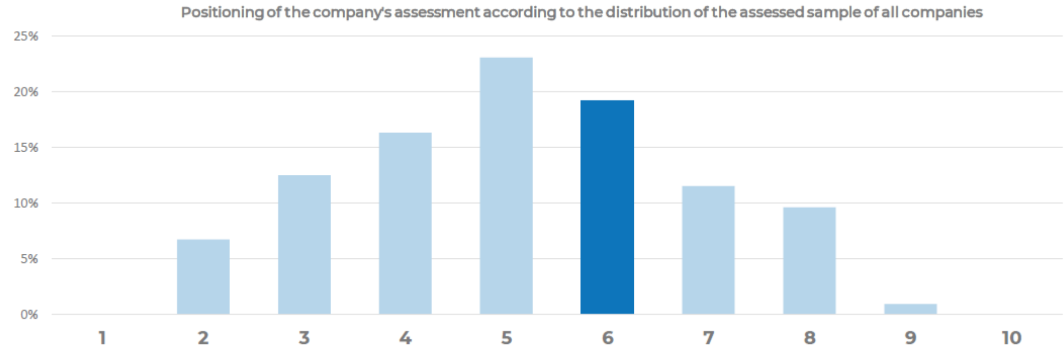
Valior d.o.o.
Trg republike 3
1000 Ljubljana

www.valior.si

Appendix
A sample report for the SAMPLE L.C.C.

SAMPLE L.L.C. GRADE 6

Industry: I - Hotels and similar accommodation establishments

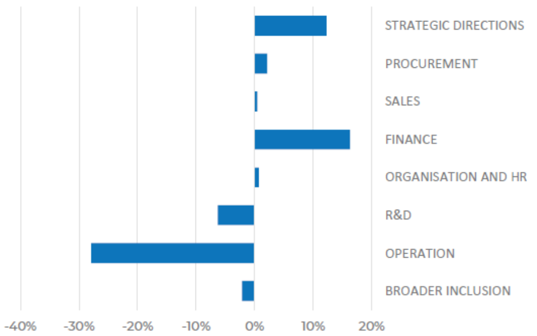


The distribution of assessments by all assessed companies is shown in light blue. The company's assessment is shown in dark blue.

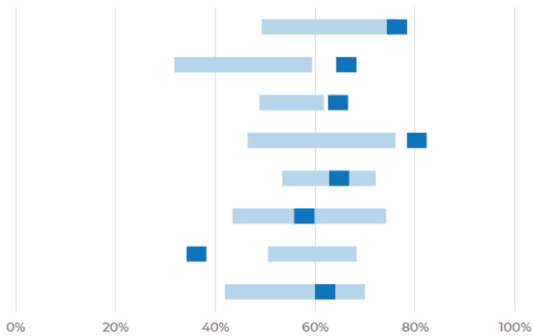
A resilience assessment of 6 out of 10 ranks the company slightly above the average according to the assessed sample of all companies. The company's response in turbulent times is relatively good, its resilience to shocks is good, and demonstrates enough stability. In some areas reserves are available to raise the resilience and ensure long-term stability.

The two graphs below exhibit the resilience structure according to different areas: where the company is loosing and where it is gaining.

The difference of the area to company resilience



Compared to the 1st and 3rd quartile



Resilience is influenced by several indicators. The presentation on the graph above is divided according to different areas. Everything negative reduces the resilience. Everything positive increases the resilience. TIP: Focus on the areas with the most negative deviation from the average.

The distribution of the middle half of companies (from 25% to 75% percentile or from 1st to 3rd quartile) is shown in light blue on the above graph. The blue dot denotes your company in an individual area (compared to all assessed companies).

Resilience index (0% to 100%)	64%	This number represents a detailed calculation of resilience (average is 58%).
Balance indicator (1 to 5)	4	This number relates to how the areas are balanced: 1 – the least, 5 – the most.
Potential for change in years	2,2	This number represents the number of years to achieve the highest grade.
According to the industry	no change in grade	The differences in assessments among industries are negligible.
According to the size	no change in grade	The differences in assessments between companies of various sizes are small.
According to the PKP	up for 1 grade	The government's intervention via anti-corona packages (PKP).

METHODOLOGY

The data was obtained via a questionnaire from more than 100 companies in December 2020 and was updated with public information as well as calibrated by Valior d.o.o. The sample of all assessed companies is representative in all industries and for all company sizes. The data is aggregated and anonymous at the level of the entire analysis. The methodology is precisely presented in the publicly available white paper (www.odpornost.si/belaknjiga.pdf).

More information and contact at: www.odpornost.si

VALIOR POSLOVNO SVETOVANJE