

ModelBI

by

RISKclinic

PRESENTATION

**on-line tool for risks assessment,
associated with business interruptions
in small and medium-sized companies**

ModelBI

An on-line tool that serves as:

- an assistant to SMEs in understanding and identifying the risks associated with business interruptions,
- an assistant to insurance sellers in explaining the purpose and the reasonableness of business interruption insurance for SM companies, and
- an educational tool.

DATA INPUT

- General information
- Financial data
- Sales information
- Work organization
- Existing insurance

ANALYSIS

- Maximum indemnity period
- Sum insured
- Sales trends
- Existing insurance

SIMULATION OF LOSSES

- Existing insurance
- Simulated insurance

Simulacija škode in izračun zavarovalnine

Insurance information

Insurance year (from): 01. 04. 2021 (to): 01. 04. 2022
 Sum insured: 4.500.000,00
 Maximum indemnity period: 9 months
 Annual insurance premium: 5.000,00

Date of physical loss on the property: 1. November 2021

Month / Year	2020	2021	2022	2023
January	800.000,00	1.000.000,00	714.000,00	1.045.500,00
February	900.000,00	1.000.000,00	255.000,00	1.045.500,00
March	990.000,00	1.000.000,00	51.000,00	1.045.500,00
April	990.000,00	1.000.000,00	51.000,00	1.045.500,00
May	990.000,00	1.000.000,00	51.000,00	1.045.500,00
June	990.000,00	1.000.000,00	51.000,00	1.045.500,00
July	990.000,00	1.000.000,00	51.000,00	1.045.500,00
August	990.000,00	1.000.000,00	51.000,00	1.045.500,00
September	990.000,00	1.000.000,00	204.000,00	1.045.500,00
October	990.000,00	1.000.000,00	510.000,00	1.045.500,00
November	990.000,00	950.000,00	1.020.000,00	1.045.500,00
December	990.000,00	900.000,00	1.020.000,00	1.045.500,00

Enter total interruption Enter 12-months interruption along the curve

CALCULATION OF CLAIM BY STEPS

Steps: 1 2 3 4 5 Exit

Step 1: Calculation of uncovered (insurable) costs and loss of profit

Month / Year	Realisation x (x = 2020 / 2021)	Plan x + 1	Actual realisation x + 1	Difference between plan and realisation	Cover
November	990.000,00	1.000.000,00	950.000,00	-50.000,00	✓
December	990.000,00	1.000.000,00	900.000,00	-100.000,00	✓
January	1.000.000,00	1.020.000,00	714.000,00	-306.000,00	✓
February	1.000.000,00	1.020.000,00	255.000,00	-765.000,00	✓
March	1.000.000,00	1.020.000,00	51.000,00	-969.000,00	✓
April	1.000.000,00	1.020.000,00	51.000,00	-969.000,00	✓
May	1.000.000,00	1.020.000,00	51.000,00	-969.000,00	✓
June	1.000.000,00	1.020.000,00	51.000,00	-969.000,00	✓
July	1.000.000,00	1.020.000,00	51.000,00	-969.000,00	✓
August	1.000.000,00	1.020.000,00	51.000,00	-969.000,00	✗
September	1.000.000,00	1.020.000,00	204.000,00	-816.000,00	✗
October	1.000.000,00	1.020.000,00	510.000,00	-510.000,00	✗

Loss of turnover: 8.361.000,00
 Insured loss of turnover: 6.066.000,00
 Uncovered (insurable) costs: 45,83 % of insured loss of turnover: 2.780.047,80

Max. indemnity period: 9 months [A] Sum insured: 4.500.000,00 [A] Period of savings: period of determined interruption [A] Period of increased costs: period of determined interruption [A] Expected amount: 1,84 % [A] Premiums: 5.000,00 [A] Simulations

ModelBI

An on-line tool that helps with:

- determining the appropriate (required) sum insured,
- setting the appropriate (required) maximum indemnity period,
- analyzing the existing insurance program,
- simulation of loss events (insurance cases),
- assessment of actual loss events (insurance cases).

The screenshot displays the ModelBI web application interface. At the top, there are navigation buttons: 'New project', 'Upload project', 'Save project', and 'Refresh analysis'. The left sidebar contains a menu with sections: 'DATA INPUT' (General information, Financial data, Sales information, Work organization, Existing insurance), 'ANALYSIS' (Maximum indemnity period, Sum insured, Sales trends, Existing insurance), and 'SIMULATION OF LOSSES' (Existing insurance, Simulated insurance). The main content area is titled 'Required maximum indemnity period' and shows a calculated/recommended minimum required maximum indemnity period of 12.00 months. Below this, there is a section for 'Setting of basic parameters' with sliders for 'duration (in months)' and 'delay in start (in months)' for various activities: Clearance and demolition (1.50, 0.50), Obtaining required documentation to rebuild the facility (2.50, 0.50), Construction of the facility (4.00, 0.00), Delivery of larger (vital) machinery and lines (2.50, 0.00), Erection of larger machinery and lines (2.00, 0.00), Required time to full (sales) capacities (2.00), and Extra time as a reserve (1.00). A checkbox 'Consideration of correction factors with maximum loading' is checked at 100%. Below this, there are sliders for 'correction (in months)' for various factors: environmental impact (due to use of hazardous substances) (+ DA, 1.00), environmental impact (due to incorporated hazardous substances) (+ DA, 0.50), special working conditions (+ NE, 0.00), possibility of purchasing used vital machinery or lines (- NE, 0.00), and shift work and free production facilities (- DA, 1.00). The bottom of the interface shows a list of simulation cases with their respective durations and delay in start values.

ModelBI

An on-line tool with built-in "What if ... simulations" functionality, that provides a quick insight or simulation what the effect of the insurance program would be if:

- the insurance program was concluded differently (e.g., with a different sum insured or different maximum indemnity period),
- certain loss parameters were different (e.g., increased costs of working or savings) or
- the movement of economic categories were different (e.g., planned sales growth).

The screenshot displays the ModelBI software interface. On the left, a sidebar contains navigation options: DATA INPUT (General information, Financial data, Sales information, Work organization, Existing insurance), ANALYSIS (Maximum indemnity period, Sum insured, Sales trends, Existing insurance), and SIMULATION OF LOSSES (Existing insurance, Simulated insurance). The main area is titled "Simulacija škode in izračun zavarovalnine".

Insurance information:
 Insurance year (from): 01. 04. 2021 (to): 01. 04. 2022
 Sum insured: 4.500.000,00
 Maximum indemnity period: 9 months
 Annual insurance premium: 5.000,00

DATA INPUT:
 Date of physical loss on the property: 1. November 2021

Table: Turnover, Increased costs of working, Savings

Month / Year	2020	2021	2022	2023
January	800.000,00	1.000.000,00	714.000,00	1.045.500,00
February	900.000,00	1.000.000,00	255.000,00	1.045.500,00
March	990.000,00	1.000.000,00	51.000,00	1.045.500,00
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CALCULATION OF CLAIM BY STEPS
 Steps: 1 2 3 4 5
 Step 5: Calculation of insured loss (excluding selfretention / deductible)

- (1) Insured uncovered costs and loss of profit: 2.780.047,80
- (2) Insured economically justified increased costs of works: 0,00
- (3) Savings (cost savings): 0,00
- (4) Underinsurance: -542.588,76
- (5) **INSURED LOSS:** 2.237.459,02

Actual estimated damage: 3.831.846,30

"WHAT IF..." SIMULATIONS

- Change agreed sum insured: 4.500.000,00
- Change agreed maximum indemnity period: 9 months
- Change period of reported saved turnover: period of determined interruption
- Change period of savings: period of determined interruption
- Change expected growth of turnover in interruption period: 0,00 %

Buttons: Change, Reset, Cancel, Simulations

ModelBI

An on-line tool based on standardized and internationally established underwriting principles, with use of world's most widespread method of business interruption insurance (i.e., gross profit method).

The screenshot displays the ModelBI web application interface. At the top, there are navigation buttons: 'New project', 'Upload project', 'Save project', and 'Refresh analysis'. The interface is divided into three main sections: 'DATA INPUT', 'ANALYSIS', and 'SIMULATION OF LOSSES'. The 'ANALYSIS' section is currently active, showing 'Analysis of current insurance' with the following details:

- Does the company already has business interruption insurance: **Yes** (green dot)
- Insurance method of business interruption insurance: **gross profit** (green dot)
- Agreed maximum indemnity period: **9 months** (red dot)
- Agreed sum insured: **4.500.000,00** (red dot)

The 'SIMULATION OF LOSSES' section is also visible, showing 'Existing insurance' and 'Simulated insurance'. Below this, the 'Financial accounting data of the company' section is shown, featuring a table with 11 rows of financial data and their corresponding values for the year 2021.

Observed period (Year):	2021
1. Turnover in the observed period:	12.000.000,00
2. Opening stocks at the beginning of the observed period (finished and semi-finished products and work in progress):	1.250.000,00
3. Closing stocks at the end of the observed period (finished and semi-finished products and work in progress):	1.000.000,00
4. Internally produced additions for own buildings and equipment (including capitalized efforts) in observed period:	50.000,00
5. Costs or expenditures for raw material intended for the manufacture of products in observed period:	3.000.000,00
6. Costs or expenditure for material used for the manufacture of the products (or in supply of services) in observed period:	2.500.000,00
7. Costs of energy (e.g., power, fuels), which is not used for maintenance in observed period:	750.000,00
8. Costs or expenditures for merchandise:	0,00
9. Costs or expenditures of other outside services purchased for resale in observed period, which are not contractually determined:	0,00
10. Other costs and expenditures related to turnover (such as packaging, carriage, freight, license fees, royalties, insurances based on turnover etc.):	50.000,00
11. Indemnities being received from stock insurance and business interruption insurance:	0,00
Gross profit:	5.500.000,00
Gross profit rate:	45,83 %

SALES MODEL

1. Annual rental / use of an on-line tool (intended for different types of insurance salespersons who interpret the results obtained with the ModelBI tool to their customers by themselves).
2. Direct consulting by RiskClinic, which provides consulting for an individual client / company using the ModelBI tool.

More information:

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EVROPSKA UNIJA
EVROPSKI SKLAD ZA
REGIONALNI RAZVOJ



REPUBLIKA SLOVENIJA
MINISTRSTVO ZA GOSPODARSKI
RAZVOJ IN TEHNOLOGIJO

ModelBI is supplemented by the book **Business interruption Insurance Guide** (publication of the book: *December 2021 – in Slovene*). More information on knjigarna.RiskClinic.eu or www.RiskClinic.si/knjigarna.

