

APPENDIX 1 CORRELATIONS BETWEEN BUSINESS MODEL BLOCKS. BLOCKS ARE EXPRESSED BY THE DEGREE OF QUALITY.

Quality of the business model blocks	Product (CVP)	Customer segments	Customer relationships	Distribution channels	Key resources (average of a-e)	Key activities	Key partners	Cost structure	Number of users (scale)	Number of customers (scale)	Revenues (scale)	Number of significant coefficients
Product (CVP)	1.00000											0
Customer segments	0.78340*	1.00000										1
Customer relationships	0.62626*	0.76490*	1.00000									2
Distribution channels	0.60541*	0.71842*	0.73466*	1.00000								3
Key resources (average of a-e)	0.57997*	0.57976*	0.45725*	0.45975*	1.00000							4
Key activities	0.50642*	0.57595*	0.58966*	0.62887*	0.55529*	1.00000						5
Key partners	0.50309*	0.54334*	0.43476	0.43920*	0.51491*	0.41482*	1.00000					5
Cost structure	-0.05387	0.06272	-0.02776	0.13928	0.09455	0.04405	-0.03916	1.00000				0
Number of users (scale)	0.07156	0.03257	-0.04056	0.07550	0.05732	-0.06067	0.12852	0.15096	1.00000			0
Number of customers (scale)	-0.01543	-0.04207	-0.09541	0.01388	0.01176	-0.08892	0.09157	0.15698	0.74433*	1.00000		1
Revenue streams (scale)	-0.23891	-0.19032	-0.18014	-0.08294	-0.19885	-0.07955	-0.18143	0.27441**	0.25235**	0.25990**	1.00000	3
Number of significant coefficients	6	5	3	3	2	1	0	1	2	1	0	

* sig. <.0001, ** sig. <.01, cost structure: scale (costs in relation to the prices achieved)

Commentary:

24/**43,6% statistically significant correlations** (11 x 11 = 121 – 11 = 110: 2 = 55 : 24 = 43,6%), strong relations relate to product (CVP), customer segments, customer relationships, distribution channels, key resources and key partners (0,4 – 0,76), however, they do not manifest themselves in statistically significant correlations with performance, revenues are influenced only by other performance indicators and costs (0.25 - 0.27).

The strongest relations:

customer segments – product

customer segments – customer relationships

customer segments – distribution channels

customer relationships – distribution channels

number of users – number of customers

APPENDIX 2 CORRELATIONS BETWEEN BUSINESS MODEL BLOCKS. BLOCKS ARE EXPRESSED BY THE DEGREE OF DEVELOPMENT.

Development of business model blocks	Product (CVP)	Customer segments	Customer relationships	Distribution channels	Key resources (average of a-e)	Key activities	Key partners	Cost structure	Number of users (scale)	Number of customers (scale)	Revenue streams (scale)	Number of significant coefficients
Product (CVP)	1.00000											
Customer segments	0.07894	1.00000										0
Customer relationships	0.23174**	0.42091*	1.00000									2
Distribution channels	0.34090*	0.20075**	0.47053*	1.00000								3
Resources (average a-e)	0.08857	0.22487**	0.23918**	0.23282	1.00000							2
Key activities	0.32267*	0.24703*	0.44899*	0.44698*	0.14685	1.00000						4
Key partners	0.27013*	0.10347	0.18778	0.37273*	0.07808	0.44135*	1.00000					3
Cost structure	0.25879*	0.09485	0.17460°	0.37123*	0.07839	0.38061*	0.25508**	1.00000				5
Number of users (scale)	0.19737**	-0.08976	0.13418	0.28521*	0.16692°	0.16564°	0.11158	0.07800	1.00000			4
Number of customers (scale)	0.24842*	-0.07321	0.09458	0.31176*	-0.07981	0.16386°	0.17560	0.14498	0.74433	1.00000		3
Revenue streams (scale)	0.05236	0.06157	0.14056	0.16144°	-0.12483	0.12244	0.00121	0.18883	0.25235*	0.25990*	1.00000	3
Number of significant coefficients	7	4	4	6	1	4	1	0	1	1		29

* sig. < 0,01, ** sig. < 0,05, °sig. < 0,1,

Commentary:

29/**52.7% statistically significant correlations** (11 x 11 = 121 – 11 = 110 : 2 = 55 : 29 = 52,7%), but correlation coefficients have lower values than correlation coefficients (0,16 – 0,44) in the table of appendix 1 (quality of business model blocks, there is more statistically significant correlations, but they are weaker, revenues are impacted by other performance indicators only (number of users, number of customers) and distribution channels.

The strongest relations:

- customer segments – customer relationships
- customer relationships – distribution channels
- customer relationships – key activities
- key activities – distribution channels
- key activities – key partners

APPENDIX 3 CORRELATIONS BETWEEN SELECTED PARAMETERS OF START-UP AND ITS PERFORMANCE

Selected parameters and performance	Age of founder	Age of team	Novelty of business idea	Differentiation of product	Type of market	Number of users (scale)	Number of customers (scale)	Revenues (scale)	Number of user (absolutely)	Number of customers (absolutely)	Revenues (absolutely)
Age of founder	1.00000										
Age of team	0.73301*	1.00000									
Novelty of business idea	0.11374	0.03922	1.00000								
Differentiation of product	-0.03108	0.10706	0.33065*	1.00000							
Type of market	0.05111	-0.04340	0.64851*	0.19550**	1.00000						
Number of users (scale)	-0.14470	-0.06774	0.10770	-0.12595	-0.00243	1.00000					
Number of customers (scale)	-0.13169	-0.06524	0.09187	-0.18219°	0.01222	0.74433*	1.00000				
Revenues (scale)	-0.17035°	-0.08043	-0.19307**	-0.06836	-0.04731	0.25235*	0.25990*	1.00000			
Number of user (absolutely)	-0.02853	0.01626	0.18367°	0.12084	0.20129	0.38358*	0.36373*	0.02756	1.00000		
Number of customers (absolutely)	-0.05633	0.02743	0.11954	0.03593	0.12069	0.30319*	0.39075*	0.00365	0.84195*	1.00000	
Revenues (absolutely)	0.09559	-0.00525	0.21257**	0.11218	0.28662*	0.06752	0.22209**	0.07635	0.35305*	0.35011*	1.00000

* sig. < .01, ** sig. < .05, °sig. < .1

The strongest relations:

age of team – age of founder

novelty of business idea – differentiation of product, type of market, revenues

revenues – novelty of business idea, type of market, number of users, number of customers

APPENDIX 4 REGRESSIONS

1. Relationship between the quality of business model blocks and start-up performance (SS = statistically significant):

a) The positive impact of the increase of the quality of the partners and decrease of costs (in relation to the prices achieved) on the number of users.

If the quality of partners is increased by 1, the number of users will increase by an average of 11578 at a significance level of 0.05. SS

$$y = -10\,864 + 11\,578x, \text{ sig. } 0.0498, \text{ Rsq } 0.0345$$

If the costs are decreased by 1 in relation to the achieved prices (scale), the number of users will increase by an average of 18763 at the significance level of 0.1. SS

$$y = -28\,693 + 18\,763x, \text{ sig. } 0.0715, \text{ Rsq } 0.0292$$

b) The positive impact of growth in customer quality, customer relations, main distribution channel, and key sources on the revenues.

If the quality of customers is increased by 1, revenues will increase by 205855 € at a significance level of 0.05. SS

$$y = -289972 + 205\,882x, \text{ std. } 88\,508, \text{ sig. } 0.0219, \text{ Rsq } 0.0469$$

If the quality of customer relations is increased by 1, revenues will increase by 225557 € at a significance level of 0.05. SS

$$y = -313\,996 + 225\,557x, \text{ std. } 92\,428, \text{ sig. } 0.063, \text{ Rsq } 0.0514$$

If the quality of the main distribution channel is increased by 1, revenues will increase by 168648 € at the level of significance 0.1. SS

$$y = -121\,062 + 168\,648x, \text{ sig. } 0.0586, \text{ Rsq } 0.0321$$

If the quality of key resources is increased by 1, revenues will increase by 208237 € at the level of significance of 0.1. SS

$$y = -193\,871 + 208\,237x, \text{ sig. } 0.0874, \text{ Rsq } 0.0263$$

2. The relationship between the novelty of a business idea and the performance of a start-up:

a) The positive impact of the novelty of the business idea on the number of users

If the degree of novelty of a business idea is increased by 1, the number of users will increase by an average of 11115 at a significance level of 0.1. SS

$$y = -13\,536 + 11\,115x, \text{ sig. } 0.0526, \text{ Rsq } 0.0337$$

b) The positive impact of the novelty of the business idea on revenues.

If the degree of novelty of a business idea is increased by 1, revenues will increase by an average of 203721 € at a significance level of 0.05. SS

$$y = 286\,464 + 203\,721x, \text{ sig. } 0.024, \text{ Rsq } 0.0452$$

3. Relationship between the stages of development (business idea) of the start-up and the performance of the start-up:

a) The positive impact of the development of the start-up on the number of customers.

If the startup advances to a higher stage of development (by one degree), the number of paying users (customers) will increase by an average of 8993.29 at a significance level of 0.1. SS

$$y = 22\,827 + 8993.29x, \text{ sig. } 0.071, \text{ Rsq } 0.0293$$

b) The positive impact of the development of the start-up on revenues.

If the start-up advances to a higher stage of development (by one degree), revenues will increase by an average of 197701 € at a significance level of 0.1. SS

$$y = -402\,857 + 197\,701x, \text{ sig. } 0.0815, \text{ Rsq } 0.0273$$

4. Relationship between financing phases and start-up performance:

a) The positive impact of start-up financing on the number of customers.

If the start-up advances to a higher financing phase (by one degree), the number of paying users (customers) will increase by an average of 11988 at a significance level of 0.1. SS

$$y = 18,776 + 11998x, \text{ sig. } 0.0684, \text{ Rsq } 0.0301$$

b) The positive impact of start-up financing on revenues.

If the start-up advances to a higher financing phase (by one degree), revenues will increase by an average of 432587 € at a significance level of 0.01. SS

$$y = -776\,141 + 432\,587x, \text{ sig. } \text{Rsqu } 0.0757$$

5. Relationship between the type of market and the performance of the start-up:

a) The positive impact of the type of market on the number of users.

If the start-up penetrates a higher level of the market (by 1 one degree), the number of users will increase by an average of 12635 at a significance level of 0.05. SS

$$y = -14\,168 + 12\,635x, \text{ sig. } 0.033, \text{ Rsq } 0.0405$$

b) The positive impact of the type of market on revenues.

If the start-up penetrates a higher level of the market (by 1 one degree), revenues will increase by an average of 284923 € at a significance level of 0.01. SS

$$y = -459\,449 + 284\,923x, \text{ sig. } 0.0022, \text{ Rsq } 0.0821$$