

Selection and weighting of performance indicators in a private healthcare organization: the balanced scorecard as a tool to support management

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Introduction

A clean-fingered performance evaluation in private health organizations provides the feedback needed to support decision-making in the design and implementation of initiatives that will lead to improved performance.

This is therefore an essential process for achieving efficiency and effectiveness in challenging clinical results health groups aspire to.

Objectives

Build a personalized tool to support management in a private health organization, defining the most appropriate selection and weighting of key performance indicators, allowing the creation of an instrument that can be used in other health organizations, either public or private.

Methodology

- Literature review using ESCOHOST.
- Construction of a questionnaire, using a 5-point Likert scale, using the following dimensions : "without using BSC", "using BSC", and "Total of 39 KPI".
- Twenty-six managers of a private health group in Portugal, experienced in the health sector, participated in the empirical study.
- The Statistical Package for the Social Sciences software was used for data processing.

Results

Survey Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0,916	0,917	39

Sample Characterization N=26		Frequency	Percent	Valid Percent	Cumulative Percent
Age	[30-40[	6	23,1	23,1	23,1
	[40-50[	15	57,7	57,7	80,8
	[50-60[	2	7,7	7,7	88,5
	[60-70[	3	11,5	11,5	100,0
Gender	Male	14	53,8	53,8	53,8
	Female	12	46,2	46,2	100,0
Higher Education in Health	No	13	50,0	50,0	50,0
	Yes	13	50,0	50,0	100,0
Higher Education in Management	No	7	26,9	26,9	26,9
	Yes	19	73,1	73,1	100,0
Management Level	Operational	2	7,7	7,7	7,7
	Intermediate	9	34,6	34,6	42,3
	Top	15	57,7	57,7	100,0
Years working in Health Management	Under 3	3	11,5	11,5	11,5
	3-5	6	23,1	23,1	34,6
	6-9	3	11,5	11,5	46,2
	More than 10	14	53,8	53,8	100,0
BSC knowledge	Never heard of	2	7,7	7,7	7,7
	Already heard of	16	61,5	61,5	69,2
	Already work with	8	30,8	30,8	100,0
Financial Prespective Predominant	No	12	46,2	46,2	46,2
	Yes	14	53,8	53,8	100,0
Clients Prespective Predominant	No	9	34,6	34,6	34,6
	Yes	17	65,4	65,4	100,0
Int Process Prespective Predominant	No	6	23,1	23,1	23,1
	Yes	20	76,9	76,9	100,0
Learning Prespective Predominant	No	13	50,0	50,0	50,0
	Yes	13	50,0	50,0	100,0

Results

Correlations													
			Age	Gen der	FSS	FSG	NG	NAFG	BSC	PF	PC	PP	PA
Kendall's tau_b	Age	Correlation Coefficient	1,000	-,065	,266	,080	,297	,304	,011	-,054	,211	-,045	,168
		Sig. (2-		,729	,159	,673	,105	,085	,954	,773	,263	,811	,373
	Gen der	Correlation Coefficient	-,065	1,000	0,000	-,134	-,468*	,074	-,489*	-,071	-,137	-,225	0,000
		Sig. (2-	,729		1,000	,504	,016	,693	,012	,721	,493	,260	1,000
	FSS	Correlation Coefficient	,266	0,000	1,000	,087	,006	,227	,035	0,000	-,081	0,000	-,077
		Sig. (2-	,159	1,000		,665	,977	,226	,858	1,000	,686	1,000	,701
	FSG	Correlation Coefficient	,080	-,134	,087	1,000	,417*	-,089	,510**	,482*	-,077	,079	,260
		Sig. (2-	,673	,504	,665		,032	,634	,009	,016	,700	,692	,193
	NG	Correlation Coefficient	,297	-,468*	,006	,417*	1,000	,106	,267	,131	,191	,202	,068
		Sig. (2-	,105	,016	,977	,032		,559	,157	,499	,325	,297	,725
	NAFG	Correlation Coefficient	,304	,074	,227	-,089	,106	1,000	-,372*	,016	-,116	-,069	,137
		Sig. (2-	,085	,693	,226	,634	,559		,041	,933	,534	,713	,464
	BSC	Correlation Coefficient	,011	-,489*	,035	,510**	,267	-,372*	1,000	,105	,146	,248	0,000
		Sig. (2-	,954	,012	,858	,009	,157	,041		,590	,452	,202	1,000
	PF	Correlation Coefficient	-,054	-,071	0,000	,482*	,131	,016	,105	1,000	,137	,042	,772**
		Sig. (2-	,773	,721	1,000	,016	,499	,933	,590		,493	,833	,000
	PC	Correlation Coefficient	,211	-,137	-,081	-,077	,191	-,116	,146	,137	1,000	,177	,404*
		Sig. (2-	,263	,493	,686	,700	,325	,534	,452	,493		,376	,043
	PP	Correlation Coefficient	-,045	-,225	0,000	,079	,202	-,069	,248	,042	,177	1,000	,183
		Sig. (2-	,811	,260	1,000	,692	,297	,713	,202	,833	,376		,361
PA	Correlation Coefficient	,168	0,000	-,077	,260	,068	,137	0,000	,772**	,404*	,183	1,000	
	Sig. (2-	,373	1,000	,701	,193	,725	,464	1,000	,000	,043	,361		

*. Correlation is significant at the 0.05 level (2-tailed).

** . Correlation is significant at the 0.01 level (2-tailed).

Results

16 Critical KPIs Without BSC	BSC Perspective				
		N	Sum	Mean	Std. Deviation
Customer Satisfaction	Customers	26	120	4,62	,637
Occupation	Processes	26	115	4,42	,578
Net income	Financial	26	115	4,42	,703
Productivity	Financial	26	115	4,42	,902
Budget	Financial	26	113	4,35	,745
Customer loyalty	Customers	26	113	4,35	,745
Clinical confidential information	Processes	26	112	4,31	1,192
EBITDA	Financial	26	111	4,27	,667
Operating income	Financial	26	111	4,27	,667
Customer attraction	Customers	26	111	4,27	,778
Service Delivery Time	Processes	26	111	4,27	,874
Deadline for receipt	Processes	26	110	4,23	,863
Employees satisfaction	Learning	26	109	4,19	,694
Claims	Customers	26	109	4,19	,801
Accessibility	Customers	26	107	4,12	,816
Volume of business	Financial	26	107	4,12	,864

Results

16 Critical KPIs With BSC (4 per Perspective)	BSC Perspective	Sum	Mean	Std.
				Deviation
Net income	Financial	115	4,42	,703
Productivity	Financial	115	4,42	,902
Budget	Financial	113	4,35	,745
EBITDA	Financial	111	4,27	,667
Customer satisfaction	Customers	120	4,62	,637
Customer loyalty	Customers	113	4,35	,745
Customer attraction	Customers	111	4,27	,778
Claims	Customers	109	4,19	,801
Occupation	Processes	115	4,42	,578
Clinical information	Processes	112	4,31	1,192
Service Delivery Time	Processes	111	4,27	,874
Deadline for receipt	Processes	110	4,23	,863
Satisfaction of collectors	Learning	109	4,19	,694
Absenteeism	Learning	103	3,96	,774
Investment in ICT	Learning	96	3,69	,618
New ideas taken	Learning	93	3,58	,857

Results

Global 16 Critical KPIs With BSC	BSC Perspective	N	Sum	Mean	Std. Deviation
Customer Satisfaction	Clients	26	120	4,62	,637
Occupation	Processes	26	115	4,42	,578
Net Financial Result	Financial	26	115	4,42	,703
Productivity	Financial	26	115	4,42	,902
Management	Customer	26	113	4,35	,745
Loyalty	Clients	26	113	4,35	,745
Clinical Information Confidentiality	Processes	26	112	4,31	1,192
EBITDA	Financial	26	111	4,27	,667
Customer attraction	Customers	26	111	4,27	,778
Service Delivery Time	Processes	26	111	4,27	,874
Receipt Deadline	Processes	26	110	4,23	,863
Satisfaction Collaborators	Learning	26	109	4,19	,694
Complaints	Customer	26	109	4,19	,801
Absenteeism	Learning	26	103	3,96	,774
IT Investment	Learning	26	96	3,69	,618
New Ideas Harnessed	Learning	26	93	3,58	,857

Results

There is a greater weighting, respectively, of the Financial, Customers, Internal Processes, and Learning perspectives, in descending order.

This latter perspective, not represented in the dimension "without using the BSC", gains representation in the strategic management system "using BSC".

Conclusion

The research considered that performance evaluation and strategy implementation is influenced by the selection and weighting of critical performance indicators, that the use of BSC influences the selection and weighting of critical performance indicators, so management tools must be developed empirically , in order to contribute to a model of strategic management control useful in evaluating the performance of health organizations, and decision making.

Science and management contribution and future studies proposal

This work intends to be the beginning of the development of a strategic management customary model, adapted to the reality of the private health groups, that can be adapted to an interactive software resulting from the triangulation of the Balanced Scorecard with other chains such as the one developed by the European Foundation for Business Quality Management and Benchmarking.

A further step was taken to facilitate the measurement and evaluation of organizational performance, while at the same time being personalized and globally integrated, making the decision-making process in the health area more objective.

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