Original Research Article

Implementing success factors for effective strategic plans implementation in public health facilities, in Namibia

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ABSTRACT

Background: Public healthcare organizations are implementing strategic plans modelling with the supposition that the outcome will be enhancing organizational effectiveness, efficiency and delivered superior healthcare services to its clientele. However, in Practices, a good strategy shall be a call for both actions and blueprint for success in responsive to the need it was formulated to address. The aim of this research is to develop implementation success factors model (ISF) for effective strategic plan implementation in public healthcare organization in developing countries.

Methods: The research utilized quantitative approach, a survey design and questionnaire was employed to collect data. The study used Gaskin's CFA/SEM procedure and applies the SPSS 23 AMOS plugins, pattern matrix model builder (PMMB), master validity (MV), model fit measures (MFM) to validate and determine the interrelationships between variables.

Results: Reviewing the literature, 20 variables were identified and implementing success factor (ISF) model with two major factors was developed, CSFs for strategic plan formulation and CSFs for strategic plan implementation. This model, in the order of effect, identified CSFs for strategic plan formulation: structural dimension (0.95), content dimension (0.75), operational dimension (0.34) and context dimension (0.23), CSFs for strategic plan implementation: operational dimension (0.70), structural dimension (0.47), contextual dimension (0.46), content (0.37).

Conclusions: The research shows that developing implementation success factors model for effective strategic plan implementation in public healthcare organization in developing countries, it will be plausible to consider CSFs for strategic plan formulation and CSFs for strategic plan implementation. Structural equation modelling/CFA has been run to prove the validity of basic CSFs in this research.

Keywords: Strategic plan implementation, Critical success factors, Public healthcare

INTRODUCTION

Healthcare reform is a difficult policy issue that involves complex trade-offs between policy goals, such as ensuring access to high-quality healthcare and keeping public spending at fiscally affordable levels. Namibia, like most emerging economies faces challenges in expanding public healthcare coverage without undermining its fiscal sustainability. Yet, in the wake of the 2008 global financial crisis, developed countries had to undertake fiscal consolidation, which has saw a decline in the flow of donor funds to health in developing countries. With dwindling donor funds and increased public outcry on the deterioration of healthcare delivery systems in Namibia, the ministry of health and social services (MoHSS) had to introduce for the first time since independence, the health sector strategic plan 2009-

2013.[1,2] despite, an increasing budgetary allocation after the implementation of the strategic plan, there has been public outcry on the deterioration of healthcare delivery systems in Namibia.

However, strategy implementation is becoming more difficult rather than strategy formulation and top management is required to keep in mind three levels of strategic planning process which are the context of the organization, content of strategy and procedure of implementation which further includes operational and structural factors.[3] Critical or key success factors is define as determinants of possible future success as a drivers behind any action undertaken by any organization.[4] As such, key success factors are the resources, competences and qualifications used to create a competitive advantage on a particular market.

Kotas et al notes that there is little empirical research covering the key success factors in social service organizations such as public healthcare. However, some of notable success factors found in the public healthcare include areas of organizations' functioning such as, quality management, social responsibility, private-public sector partnerships.

It has been argued that an improvement in clinical management will improve the authority shared by administrators and clinical professionals as often they have competing interests.[5] These competing interests create a conflict over the scarce resources that fuel a

political environment that impede the strategic implementation in public hospitals. Aquilani et al carried out a systematic literature on total quality management critical success factors, in order to identify new avenues of research. The study reviewed 103 articles published from 1993 to 2016, accessed from Ebsco, JSTOR, and Springerlink databases and on the search engine Google Scholar. Out of the 103 articles, 88 were based on empirical evidence and 15 were conceptual. Their study found that it seems clear "leadership/top management commitment," at 10.29% occurrences was the most cited CSF, followed by customer focus or satisfaction (7.65%), Training and Education (7.39%).[6]

Farzin et al carried out a survey to identify the critical success factors (CSFs) in service industries for strategic knowledge management implementation. Farzin et al. identified and adopted from literature 24 CSFs that provide an appropriate framework for SKM implementation. Using structural equation modeling (SEM) they analyzed these critical success factors and found unidimensional model fit of strategic knowledge management implementation and the 24 CSFs.[7] They recommended that future researchers may use their results to develop frameworks for the other industries.This study utilized 20 CSFs of Farzin et al framework,applied it to public healthcare to test the hypothesis whether Kalali et al's model of four factors may actually represent strategic plan phases and subsequently, have an influence on the effective strategic plan implementation in public healthcare.[8]
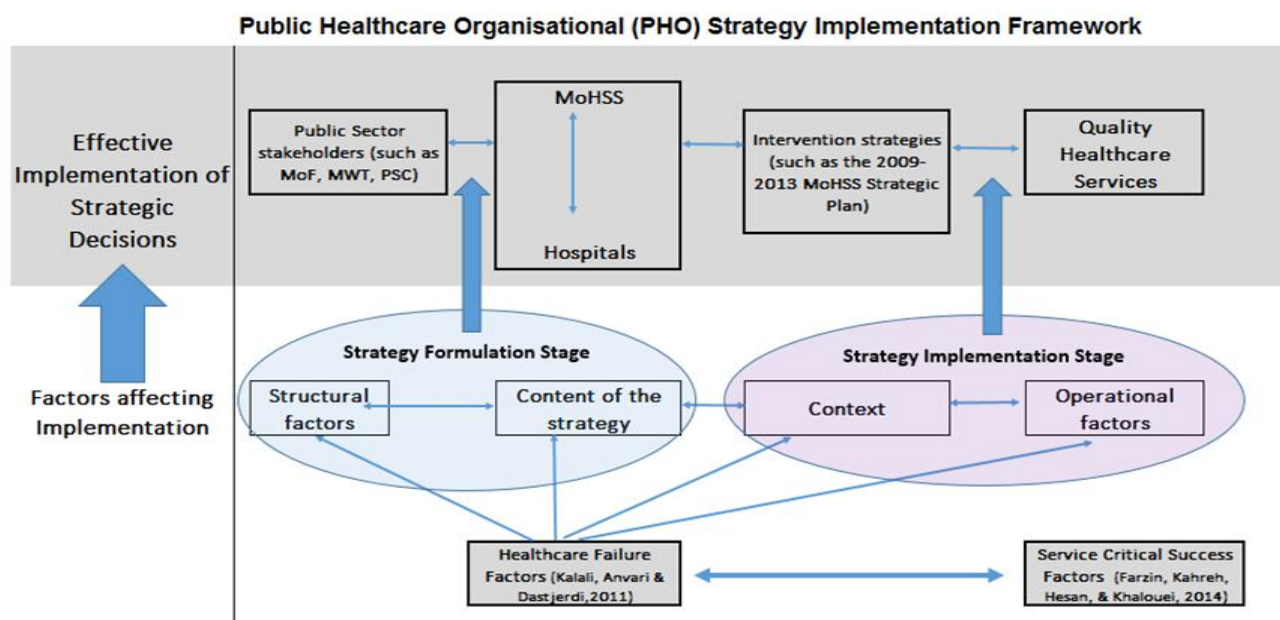
Figure 1: Conceptual framework for implementation success factors.

The study makes its conceptual model and research propositions within an active implementation framework. Consequently, the study uses a determinant framework that functions action model that will identify the implementation success and failure factors in complex

settings such as the public healthcare service sector. Rycroft-Malone et al highlights that active implementation frameworks's dual role of providing hands-on support to implement strategy and identifying determinants for its evaluation.[9]

Study proposition

Several determinants exist, which mediates the implementation relationships between Public health organisations (PHOs) and the ministry or department of health. The study determinants refer to the different factors affecting implementation outcomes. These include the content of the strategy, contextual, structural, and operational factors.

Objective

To develop implementation success factors model (ISF) for effective strategic plan implementation in public healthcare organization in developing countries.

METHODS

The research utilized quantitative approach, a survey design and questionnaire was employed to collect data from the Ministry of Health and Social Services (MoHSS) operational staff and regional management from three intermediate public hospitals to identify the critical success factors (implementation success factors). The hospitals are Katutura Intermediate State Hospital (KISH) in Khomas region, the Rundu Intermediate State Hospital (RISH) in Kavango region and the Oshakati Intermediate State Hospital (OISH) in Oshana region. The study only covered those who have been continuously in the employment of MoHSS for the period February 2009-February 2013. The population was 453 operational staff and regional management members. A representative of 290 staff was involved in this research. The study was carried out from May 2016- July 2016.

Dimensions of measurement

The questionnaire instrument was based on Farzin et al model of critical success factors (CSF) for strategic knowledge management (SKM) implementation for the service sector. As such, this study adopted the following 20 items for the implementation success factor unidimensional: organisational alignment to strategy and values consistent with core business, community involvement in corporate decision making, employee's re-orientation to change organisational culture, social norms and impact on community factors, linking incentive system to the plan, client driven centred, top management support, commitment and involvement, interdepartmental cooperation and teamwork, internal communication, stakeholder management and public relations, staff member education and training on the strategic plan, competence of the strategic plan implementation steering committee, understanding and effective use of the strategic plan implementation tools, competitive orientation of the organisation, organisational orientation to local competition, legal norms, use of external consultants, role of information technology, inspirational leadership, financial control and planning optimization and project management skill.

Analysis

The strength of the relationship among the variables (or items) was tested using the Kaiser-Meyer-Olkin (KMO) test, which must produce a value larger than 0.5 and, Pallant's et al stated that the items within the scales should adequately correlate with a Bartlett's test of sphericity that should be significant (p<0.05). The study results showed that all the necessary conditions were met and that it was appropriate to conduct an exploratory factor analysis and only items that contained factor loadings greater than 0.30 were considered to be significant and were thus retained.[10] The study further follows Gaskin's CFA/SEM procedure and applies the SPSS 23 AMOS plugins; pattern matrix model builder (PMMB), master validity (MV), model fit measures (MFM) in an iterative process. Using the pattern matrix model builder (PMMB) plugin involves copying the SPSS dimension reduction output's EFA pattern matrix and pasting in into PMMB and running.[11] This results in a CFA/SEM model whose validity and model fit measures are tested using the MV and MFM plugins.[12]

RESULTS

The Farzin et al model of unidimensional, 20-item implementation success factors (ISF) scale was evaluated using principal axis factoring with direct oblimin rotation. The results presented in Table 1, show that the 20-item ISF scale is reduced to four dimensions (operational, context, content, structure).
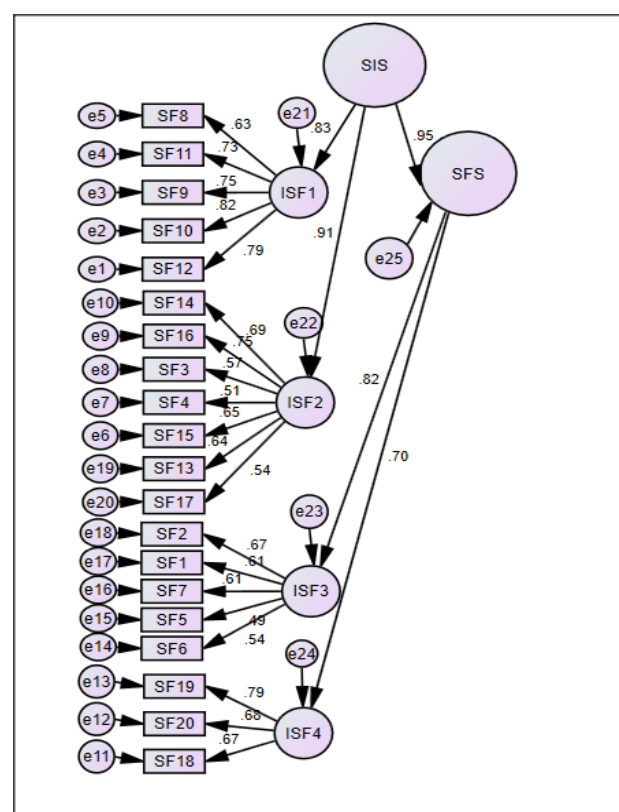

Figure 2: ISF model fit.

Table 1, results are not consistent with Farzin, et al who modelled it as unitary dimension of implementation in the service sector. However, the results are consistent with the four strategic plan failure dimensions suggested by Kalali et al and Sial et al 2013.[13]

Table 1: Results of the factor analysis on ISF scale.

Variables	Description	Operational	Context	Content	Structure
ISF_10_HRM_Edu_Tr	Staff member education and training	0.718	0.309		
ISF_11_HRM_Compt_Com	Competence of the implementation steering committee	0.610			
ISF_12_HRM_SP_Imp_Tools	Understanding and effective use of the strategic plan implementation tools	0.740			
ISF_8_HRM_Inter_Coop	Interdepartmental cooperation and teamwork	0.546		0.381	
ISF_9_HRM_Internal_Comm	Internal communication, stakeholder, management and public relation	0.632			
ISF_13_Infra_Dev_Mgt_Competitive	Competitive orientation of the Organisation		0.424		
ISF_14_Infra_Dev_Mgt_Competitive_Loc	Organisational orientation to local competition	0.355	0.529		
ISF_15_Goverenance_Legal	Legal norms		0.640		
ISF_16_Governance_Ext_Cons	Use of external consultants	0.312	0.546	0.346	
ISF_17_Governance_Inf_Tech	Role of information technology		0.390		0.368
ISF_3_Service_Prov_Emp_Cult	Employees re-orientation to change in culture		0.556		
ISF_4_Service_Prov_Social	Social norms and Impact on Community factors		0.560		
ISF_1_Service_Prov_Org_Core	Organisation alignment &consistent with core business			0.600	
ISF_2_Service_Prov_Comm_Corp	Community involvement in corporate decision making			0.771	
ISF_5_Service_Prov_Incetive	Linking incentive system to plan			0.375	
ISF_6_Service_Prov_CI_Dr	Client driven centred		0.303	0.353	
ISF_18_Governance_Ins_Lea	Inspirational leadership		0.433		0.460
ISF_19_Financial_Mgt_Fin_Cont	Financial control and planning optimisation				0.852
ISF_20_Financial_Mgt_Pjt_Mgt	Project management skills				0.639
Eigen value		7.29	1.45	1.40	1.24
% of variance		36.47	7.26	7.00	6.20
Cumulative		36.47	43.73	50.73	56.93

The four dimensions were then confirmed and validated using CFA/SEM model fit. The results are presented in Figure 2. It presents the results from the ISF model fit. AMOS modelling iterations were used to test the hypothesis that Kalali et al's model of four factors may actually represent strategic plan phases.[8] The resulted model fit suggest that it is plausible to categorize these four factors into two major categories, the strategic formulation factors and strategy implementation factors. As such, the study develops the SFS factor to represent

factors that affect the strategy formulation success (SFS), while the SIS factor represents the factors that would affect the strategy implementation success (SIS). The model fit measures of this model are presented in Table 2.

Table 2 presents the model fit measures of the final ISF model from numerous iterations guided by the cut off criteria and validity concerns. The ISF model fit was acceptable and did not have any validity concerns.

Table 2: ISF model fit measures.

Measure	Estimate	Threshold	Cut-off criteria*			Interpretation
			Terrible	Acceptable	Excellent	
CMIN	311.289	--				--
DF	165	--				--
CMIN/DF	1.887	Between 1 and 3	>5	>3	>1	Excellent
CFI	0.904	>0.95	<0.90	<0.95	>0.95	Acceptable
SRMR	0.067	<0.08	>0.10	>0.08	<0.08	Excellent
RMSEA	0.066	<0.06	>0.08	>0.06	<0.06	Acceptable
PClose	0.012	>0.05	<0.01	<0.05	>0.05	Acceptable

Table 3: Interpretation of ISF model.

Variables	Category	ISF model		Final SEM Model			
		SFS	SIS	Standar-dized wt.	PHO	MoHSS	PSE
ISF_Operational	Strategy lmplementation	0.34	0.70	-0.49	0.03	-0.04	0.88
CSF_10_HRM_Edu_Tr	ISF_Operational	0.28	0.57	0.79	0.02	-0.03	0.70
CSF_12_HRM_SP_lmp_Tools	ISF_Operational	0.27	0.55	-0.17	0.01	0.25	0.96
CSF_9_HRM_lnternal_Com	ISF_Operational	0.26	0.53	0.76	0.02	-0.03	0.67
CSF_11_HRM_Compt_Com	ISF_Operational	0.25	0.51	0.71	0.02	-0.03	0.62
CSF_8_HRM_lnter_Coop	ISF_Operational	0.22	0.44	0.77	0.02	-0.03	0.68
ISF_Context	Strategy lmplementation	0.23	0.46	0.74	0.01	0.18	0.71
CSF_16_Governance_Ext_Cons	ISF_Context	0.19	0.38	0.60	0.02	-0.02	0.53
CSF_14_lnfra_Dev_Mgt_Competitive_Loc	ISF_Context	0.17	0.35	0.69	0.01	0.17	0.66
CSF_15_Govemance_Legal	ISF_Context	0.16	0.33	0.67	0.01	0.17	0.64
CSF_13_lnfra_Dev_Mgt_Competitive	ISF_Context	0.16	0.33	0.64	0.01	0.16	0.61
CSF_3_Service_Prov_Emp_cult	ISF_Context	0.14	0.29	0.55	0.01	0.14	0.53
CSF_17_Governance_lnf_Tech	ISF_Context	0.13	0.28	0.52	0.01	0.13	0.50
CSF_4_Service_Prov_Social	ISF_Context	0.13	0.26	0.50	0.01	0.12	0.48
ISF_Structural	Strategy Formulation	0.95	0.47	0.05	0.75	0.26	0.07
CSF_19_Financial_Mgt_Fin_Cont	ISF_Structural	0.75	0.37	0.78	0.59	0.20	0.05
CSF_20_Financial_Mgt_Proj_Mgt	ISF_Structural	0.65	0.32	0.68	0.51	0.17	0.05
CSF_18_Governance_lns_Lea	ISF_Structural	0.64	0.31	0.68	0.51	0.17	0.05
ISF_Content	Strategy Formulation	0.75	0.37	-0.50	0.03	0.39	0.60
CSF_2_Service_Prov_Comm_Corp	ISF_Content	0.50	0.25	0.64	0.02	0.25	0.38
CSF_1_Service_Prov_0rg_Core	ISF_Content	0.46	0.22	0.63	0.02	0.25	0.38
CS F_7_H RM_To p_Mgt	ISF_Content	0.46	0.22	0.51	0.02	0.20	0.31
CSF_6_Service_Prov_CI_Dr	ISF_Content	0.41	0.20	0.50	0.02	0.20	0.30
CSF_5_Service_Prov_lncetive	ISF_Content	0.37	0.18	0.45	0.01	0.18	0.27

Table 3, shows that the strategy implementation success (SIS) factors developed from the ISF Model, have high regression weights (bolded) on contextual (light blue) and operational (blue) dimensions. In addition, these SIS factors were also significant in the final SEM model with moderate to strong standard regression weights. The results show that the operational and contextual SIS factors have a strong effect on the public sector effect. This is expected, since the all operational SIS are related to human resources functions, which are done by the Public Service Commission. Whereas, the contextual SIS factors include factors such as external consultants, legal norms and infrastructural development which are also done by government agencies, departments and ministries other than the MoHSS. The items were then reduced using exploratory factor analysis which is evaluated using principal axis factoring with direct oblimin rotation. A quantitative interpretive structural modelling (ISM) approach was used within an action implementation framework (AIF), variables were categorized into 4 factors dimension measurement. This model, in the order of effect, identified CSFs for strategic plan formulation: structural dimension (0.95), content dimension (0.75), operational dimension (0.34) and context dimension (0.23), CSFs for strategic plan implementation: operational dimension (0.70), structural dimension (0.47), contextual dimension (0.46), content (0.37). Additionally, the findings show that the operational SIS factors (88%) and contextual SIS factors (71%) effect are depend on the structural factors for effective strategic plan implementation in the three intermediate public healthcare in Namibia.

DISCUSSION

The study utilized 20 CSFs of Farzin et al framework, applied it to public healthcare to test the hypothesis whether Kalali et al's model four factors whether may actually represent strategic plan phases and subsequently, have an influence on the effective strategic plan implementation in public healthcare.[7,8] The research sought to interpret the CFA and SEM model in the context of the research, as well as highlight some contributions and discoveries made in the study. The standardized regression weights of the fitted model was arranged to reflect the overall regression weight values of the model fit paths. The revised regression weights were then sorted in descending order. The ISF model fit was acceptable and did not have any validity concerns. The resulted model fit suggest that it is plausible to categorize these four factors into two major categories, the strategic formulation factors and strategy implementation factors. However, the CFA/SEM analysis highlights poor correlational effects but strong covariance among the factors. This could be the reason for inconsistent factor loadings with those of Farzin et al framework.[7] Additionally, the findings show that there is need for improved integration within the government institution. As such, the public sector effect from Ministries such as MoF, MWT, PSC, affects the successful implementation of healthcare strategies in Namibia. Consequently, these agencies and ministries should be held responsible and accountable for the public healthcare service delivery, together with MoHSS and the state hospitals. There is need for inter-agency hospital boards or steering and standing committees tasked with the running of the hospitals as the model results show a missing link to the effective running of the hospitals.

From Table 3, the public healthcare organisations (PHOs) has significant regression weights on the strategy formulation success (SFS) factors. The results are confirming that the intermediate hospitals do not have their own strategies, instead they implement the MoHSS national strategies. As a result, the regression weights show moderate effects on the MoHSS and PSE. However, there are small to no effects on content of the strategy for the PHOs. Therefore, the model suggest that the hospitals focus on the structural SFS factors that would ensure improved financial management, budgetary control and hospital autonomy. The PHOs need to be given more say on their labour, maintenance and capital budgets, which are currently being managed by PSC, MWT and MoHSS respectively.

CONCLUSION

The study concludes that Kalali et al`s model four factors indeed represent strategic plan phases and have an influence on the effective strategic plan implementation in public healthcare. Moreover, developing an implementation success factors model for effective strategic plan implementation in public healthcare organization in developing countries, it will be plausible to consider CSFs for strategic plan formulation and CSFs for strategic plan implementation.

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