

The impact of viable system model on organizations success in the security sector of Egypt

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Keywords

Security, VSM, Organization Success, Communication, Coordination

Abstract

Security becomes an important issue in nowadays in Egypt, especially after the recent revolutions happening in the country since year 2011. Thus, there is a great concern with the security services provided in the country nowadays. Therefore, the organizations success in the field of security is gaining a high focus and new contributions in managing such organizations become an essential requirement. Accordingly, this research comes to introduce the viable system model (VSM) as a solution to the problems that such organizations are facing, as VSM is designed to surface deficiencies present in the existing systems. Questionnaires are directed to experts in the field of security to figure out the problems they are facing and provide solutions using VSM. A structural equation modeling will be conducted to analyze the questionnaires after applying reliability and validity analysis. Results showed that the first and fifth hypotheses are supported, as there was a significant relation between Operation and Organizational Success as well as Top management and Organizational Success. On the other hand, the second, third and fourth hypotheses are rejected as there was an insignificant relation between each of Coordination, Executive Management, Sustainable Development and Organizational Success.

Introduction

Given the importance of being secured and the increasing demand of security services nowadays, there is a need for new contributions in management of enterprises that provide such services to ensure quality at a reasonable cost and expected delivery time and by that achieve organizations success. The viable system model (VSM) is praised for its significance in the field of operational management. VSM is used to design a viable system or to surface deficiencies in an existing system. Consultants, decision makers and system analysts particularly appreciate VSM given the thoroughness and rapidness of the VSM diagnosis and its ability to assist with complexity management. A VSM diagnosis leads to a comprehensive understanding of a system. It reveals the interactions and linkages in the system and surfaces present shortcomings.

Thus, there is a need to highly improve the security services provided by different companies. The research aim is to explore the VSM dimensions which cope with the organization success. Therefore, this research comes to explore the relationship between VSM and organization success through the knowledge management process and provide solution to security problems facing the country nowadays. It is important for any country to provide the desired level of security for citizens through different security services provided. In Egypt, the issue is highly important after the revolutions the country had been exposed to.

This research is designed to include five main sections, where the first one will represent the introduction to the research; presenting its problem, aim, and objectives. The next section is presenting the literature review, including the VSM meaning and related theories as well as recent studies testing the impact of VSM on organization success. The third section is describing the research methodology, including the research framework and hypotheses. The fourth section is an illustration of the findings and results of the research. Finally, the fifth section represents the discussion and conclusion of this research.

Literature Review

British theorist Stafford Beer developed the concept of Organization Cybernetics (OC) in the late 1970s, which has attracted the attention of many scholars since then. Cybernetics is commonly understood as the science of effective management through the exploration of a firm's communication and control systems. Thus, OC provides practitioners with the tools to achieve organization success, notably through the use of Stafford Beer's Viable System Model (VSM). The Viable System Model (VSM) was described by Stafford Beer, the father of Management Cybernetics, in his books *Brain of the Firm* (Beer, 1981), *The Heart of Enterprise* (Beer, 1979), and *Diagnosing the System for Organizations* (Beer, 1985).

The viable system model was first addressed by Beer's (1984) viable systems model which is based on five essential "recursive" functional sub-systems which work to ensure the viability and symbioses (Leonard, 2007). Another definition of the VSM is that it is a design of Management Cybernetics used as an organization instrument to achieve its success. Thus, the VSM unites the main concepts of cybernetics and represents a pragmatic framework tooled to analyze and design organizations (Gmür et al., 2010). The VSM not only supports an organization by diagnosing of its system structure to reveal room for improvement, but also supplies an instrument for redesigning the system structure in order to sustain, consolidate and advance its viability (Gmür et al., 2010).

Organizations' viability is a complex issue, owing to the high number of factors that affect it (Ríos, 2006). So, VSM offers a useful, innovative, and effective reference framework for analyzing the organizational structure of an organization from a multidimensional, cybernetic perspective, on the strength of which managers can cope more efficiently and substantially with complexity. In addition, a framework was offered to cope with complexity, which proved to be of value in practice and which can be considered from both a theoretical and a practical point of view as a highly mature organizational theory (Gmür et al., 2010).

The VSM applies to every system that must process internal and external complexity in order to preserve its sustainable capacity to act and its ability to develop the framework proposed by Gmür et al (2010) because it is considered as the heart of enterprise. Also, a functional model of viability was proposed that specifies criteria for the functioning of systemic infrastructures (Achterbergh and Vriens, 2011) and offers a powerful and alternative model for both economic and social organizations to structure themselves, especially, for those operating in highly turbulent environments (Ben-Ali, 2011).

Hence, the VSM primary purpose is to reduce the internal and external complexity of a system by providing a framework that makes the organization' multidimensional structure and sub-systems observable and facilitates its analysis. A variety of different organizations had used the VSM to solve problems and redesign the organization so that it is capable to sustain itself and adapt to its changing environment. VSM has also been effective in enabling managers and other users to make effective strategic decisions for their organizational success. However, the VSM is a complex system in itself that must be clearly understood before being adopted. The next section covers the fundamental aspects of the VSM theory.

According to the VSM theory (Beer 1979, 1981, 1985, 1989), a social system is viable if, and only if. It fulfills a certain number of requirements. Moreover, the VSM is distinctive from other theories because it claims that the fulfillment of these conditions is not only necessary but sufficient to guarantee an organization's viability (Schwaninger, 2006; Gmür et al, 2010).

Firstly, a viable organization must perform five management functions, namely Operation, Coordination, Control, Intelligence and Policy (Schwaninger, 2006; Espejo, 2007; Leonard, 2007; Rios, 2010; Gmür et al, 2010; Achterbergh and Vriens, 2011). Those subsystems can be further described as follows: System One consists in the organization's primary activities. The operational units of System One perform the day-to-day business activities of the organization and are in direct interaction with their environment. Those primary activities constitute the identity of the organization. For example, the primary activity of an energy production company may be the production and distribution of wind energy. Each activity is considered a viable system on its own, containing the five subsystems needed for its viability.

System Two provides coordination elements such as communication systems, coordination committees or shared databases. It ensures that all System One units can interact smoothly and consistently among themselves. System Three, also named the “central command channel” (Beer, 1985) is the executive management which governs System One and ensures stability and cohesion within the organization as a whole through System Two and Three*. Thus, System Three is concerned with the “inside and now” well-being of the organization. Its functions include the allocation of resources and enabling the autonomy of primary activities. System Three* is the organization’s auditing and monitoring channel (Achterbergh and Vriens, 2011).

System Four handles the long-term and sustainable development of the organization. Specifically, System Four keeps track of the trends, strengths and weaknesses related to the organization’s environment. It is responsible of the “outside and then” of the organization by maintaining a constant readiness to change. System five is responsible for the normative management of the organization. It defines the organization’s ethos, vision and goals. Systems One to Three* are thus in charge of the organization’s short-term operational management, while System Four and Five take care of the long-term strategic management (Achterbergh and Vriens, 2011).

An organization cannot be considered viable without the presence of the five management functions mentioned above. Viability means having the ability to exist independently and to adapt to its constantly changing environment (Ashterberg and Vriens, 2011; Hildbrand and Bodhanya, 2014). Therefore, a viable system must be able to cope with the complexity and variety related to its own structure and its surrounding environment. Conant and Ashby (1970) addressed this problem by stating that any system has to be regulated through a model that displays all features and possible states of that system (Puche-Regaliza, 2014). In other words, Ashby’s law of requisite variety specifies that the regulating system must have as much variety as the system it is meant to regulate to measure its complexity (Holten and Rosenkranz, 2011). The role of the five management functions is to manage the available variety to support the relationship between the system and its organizational or natural environment (Leonard, 2007).

The VSM can be applied to any viable system that is capable of supporting itself as an independent entity. Each entity is nested within other entities according to a number of different criteria including its scale, and the requirements of its environment and the larger entities, if any, in which it is embedded. For instance, those basic entities may be divisions if we look at an organization, nation states if we look at a nation, nations if we look at a continent and continents if we look at the whole world. This is Beer’s concept of structural recursion which entails that the five subsystems recur in all embedded and embedding primary activities. Hence, in a firm each organizational level is a recursion of its super-system which is autonomous and able to exist independently. This reduces complexity as decisions concerning the details of operations can be made locally without the involvement of top management (Holten and Rosenkranz, 2011; Hildbrand and Bodhanya, 2014; Hildbrand and Bodhanya, 2015; Markus Schwaninger, 2015).

Legitimacy is an important element of an organization’s success that must be strategically managed and be considered as a required goal in the organization’s strategic planning process. Díez-Martín et al. (2013) and Organizational survival (or success) is linked to legitimacy (Meyer et al, 1977) because organizational survival depends on the support the organization receives from its different constituencies. So, it is considered as a key factor in understanding organizational growth and survival (Díez-Martín et al. 2013).

The effectiveness of communications with the public regarding a charitable organization’s success stories depends on the type of message used in relation to the cultural context. Schertzer, (2010), therefore, the question of how the enterprise attempts to deal with significant change is often crucial to how well it succeeds, so it was suggested that the need for critical factors to be addressed during periods of significant change in order for the organization to be successful Chrusciel and Field (2006).

On the other hand, Rodríguez-Sánchez and Perea, (2015) define organizational resilience as the ability to manage disturbances of the normal workflow and to regain a dynamically stable state that allows the organization’s goals of production and safety to be achieved and It can be conceptualized as a resilience potential in innovation contexts. Therefore, an organization’s capacity for resilience is

developed through strategically managing human resources to create competencies among core employees, that when aggregated at the organizational level, make it possible for organizations to achieve the ability to respond in a resilient manner when they experience severe shocks (Rodríguez-Sánchez and Perea, 2015)

Then, reputation creation, enhancement, and protection are critical to an organization's success, yet highly challenging given the wide ranging and somewhat opaque nature of the concept. Gatzert, et al., (2016) in addition a continuous change can put great strain not only on individuals and groups but the organization itself (Vakola et al., 2004). Accordingly, it is concluded that the organizational success is the maintenance of positive adjustment under challenging conditions such that the organization emerges from those conditions strengthened and more resourceful (Rodríguez-Sánchez and Perea, 2015).

The VSM contributes to an organization's success by helping it strategically plan and manage its goals including organization legitimacy, effectiveness and reputation. Among the most important elements to ensure an organization resilience and sustainability is by creating effective communication channels for transmitting information across the different system levels. This is done by ensuring that knowledge management is well established within the organization.

For a policy issue, stakeholders need to exercise an on-going influence in related policy processes. Dialogues require the underpinning of good organizational processes to contribute to transparency. Weak transparency loops may undermine the legitimacy, authenticity and truth of experts' participation in dialogues. It is apparent that well-designed dialogues between actors and stakeholders are unlikely to increase the acceptance of a policy if the silent majority, in multiple daily events, experience that the implementers are not truthful. Also, it may be counterproductive to invite stakeholders to dialogues to frame policy, if afterwards they have no influence in the unfolding of events (Westerlind and Andersson, 2005).

Dialogues need to be part of a decision-making process in which stakeholders are fully engaged. This kind of engagement requires embedding dialogues in structural mechanism for participation and this, on its turn, requires an appreciation of the requisite organization for the policy of concern. Clarify effectiveness is the main heuristic that the RISCUM model offers in order to give adequate embedding to dialogues.

In learning terms, it is recognized that stakeholders in the problematic environment can help clarifying effectiveness by stretching those resources concerned with the outside and then in the organizational system but equally those operators currently implementing the policy can help clarifying effectiveness by aligning their actions with those of policy-makers, thus reducing gaps between the meanings created in the informational domain and produced in the operational domain. Policy-makers, at several levels of organizational recursion, can clarify effectiveness by aligning the closure they give to organizational processes with what is considered good and just in that society.

Also, civil society members with strong views about a policy issue (i.e. stakeholders in the problematic environment) can contribute to clarify effectiveness by improving their communications with the silent majority, thus increasing their involvement and the alignment of their values with those of policy-makers. Policy-makers can increase transparency by making their actions contestable by the people through democratic mechanisms (Espejo, 2007).

The viable system model is a useful frame within which to consider these possibilities and to build capacity for concerted action. Common survival may well depend on the ability "live together" and to find local ways to collaborate in the face of potential risks and to work together to prevent them or to blunt their effect. If this does not happen, some of the potential "bads" will be worse. If there is no route to viability for whole countries and large population groups within countries, conflict is predictable. Technology enables even a small group of people to do a great deal of damage and it is not a happy alternative to let increasing security become the only answer to problem situations. Climate change will affect us all. It could be that currently less developed portions of the world will have what is needed to make the difference between massive collapse and bearable adjustments. Human beings could take a lesson from the fungi and the algae. They took a "lichen" to each other and thrive in conditions that neither could survive alone (Leonard, 2007).

A study of Boyd and Jaworski (2009) explained that both analytic narratives of intentionality and executable prototype models have essential roles to play in learning about and designing systems. This is done by three parallel learning-conversations: about why we are learning this; about what is really going on here; and about which learning strategies (meta-cognitive strategies) to use. These conversations are carried on at the same time as cyber systemic modelling which often involves the building of a canonical formal representation of entities, relationships and transformations, making possible the running of simulations. This is done in order to assess the completeness, correctness and requisite control variety aspects of actual and prospective viable systems and software. It has been found by carefully triangulated observations over two decades of using successive versions of this methodology that graduate students who work through these activities with this notational technology, develop deeper understanding, produce more reliable software and develop more viable systems (Boyd and Jaworski, 2009).

The VSM highlights the importance of comprehending an organization as more than a hierarchical entity, and clearly indicates that normative, strategic and operational management tasks are not hierarchically isolated but distributed and shared managerial functions, which allow the absorption of complexity at an early stage in the organization, and therefore relieve management on the corporate level. To cope with this responsibility, appropriate capabilities must be acquired on each and every recursion level of an organization. In this case study, three important functions of the VSM for the practitioner have emerged (Gmür, et al, 2010):

The VSM contributes enormously to one's understanding of an organization, by demonstrating immediately to the user, while applying the VSM, the importance of an integration and active perception of normative, strategic and operational management tasks on each level of recursion. The model guides the manager's attention deep into the structural interrelationships between the various decision nodes in an organization. It highlights especially the need to acquire an understanding about the existing communication channels, which ensure the flow of information inside the organization. The case study has shown how deep the model allows one to "dive" into the workings of an organization. It almost forces the user to investigate an organization intensively and not just be comfortable with scratching on the structural surface.

As the analysis has proven, the model also applies in the context of a non-profit organization, which indicates the adaptability of the framework. Regarding the organizational design and the introduced initiatives of management to improve its structural efficiency and therefore its viability, the study gives an example of how a new structural configuration or structural advancements can be derived from a diagnosis based on Beer's VSM.

The VSM has preserved its importance as an efficient management tool since its emergence more than 30 years ago. As the case study corroborates, the VSM's practical and application-oriented focus is of high value for diagnosing and designing viable, sustainable organizations. An implementation of the model for Libya's Youth and Sports Ministry was undertaken in 2007. Although the full implementation was never completed, the methodological approach used was effective. Another lesson learnt by the analyst was that before attempting to improve the viability of a system, whether a human resource planning information system for an organization or implementing a viable model for a ministry or state, it is necessary to plan for a scenario where unforeseen and catastrophic changes, whether from external environmental challenges or from internal policy changes, can challenge the survivability of the project itself (Ben-Ali, 2011).

The process that helped the university's new top management was outlined to diagnose the situation at the beginning of its mandate and to design pertinent actions. This process starts by clarifying the university identity, purpose and boundaries and is followed by identifying the required structural levels. For each of them the key factors to be considered and actions to be taken are stated. The use of a Recursion Levels-Key Factors Matrix helped to maintain a coherent and holistic view of the intervention. This kind of framework can guide leaders of public and private organizations to apply cybernetic concepts to improve their strategic policies' design and actions. The application of organizational cybernetics and the viable system model to urban planning-related activities in universities is highly original. The framework here presented, together with the example of its application, can serve as a guide

to leaders of other universities as well as other public or private organizations when coping with the complexity they have to face (Ríos, et al., 2010).

VSM and qualitative research methods were combined in an interactive manner to produce a VSM diagnosis. The VSM diagnosis highlighted that while continuity of the system is not at risk, many improvement opportunities exist. For example, the local mill management lacks autonomy, essential operational measurement cannot be realized, coordination is deficient and a vision or identity for the mill area and a joint effort to engage in strategic considerations is missing. Miller-grower fragmentation surfaced as one cause of these shortcomings. Although VSM revealed shortcomings, it was unable to facilitate interventions for improvement. VSM's capacity in dealing with shortcomings should be strengthened and the merit of VSM in other food-related supply systems should be investigated. Millers and growers need to become genuine partners and work jointly on the issues that challenge the system to realize the full potential that is embedded in the system. VSM has not been applied in the sugar industry context and the number of researches that explore sugarcane supply chains holistically is limited (Hildbrand and Bodhanya, 2014).

An exploratory empirical analysis is conducted of a set of software projects, in which the degree of compliance with the requirements set down by the VSM and the success rating of their development are identified. The results of the study indicate that the most influential factors in achieving global viability in a software project are the local environment, the organizational units and the intelligent system. Building on those factors, a mathematical prediction model is developed, reaching an accuracy of 63.16 percent in its predictions. The authors wish to point out that due to the number of projects employed in the statistical analysis, the results have to be interpreted with caution and are of an exploratory nature. The authors seek to show that the VSM is an extremely useful tool for the management of software projects and, by extension, projects of a general nature.

The authors therefore suggest that knowledge of VSM would be of incalculable value for managers wishing to manage projects successfully and to survive in such a complex and rapidly changing environment as the software project environment is. Its application allows us to diagnose and to detect the critical factors to achieve such success. In addition, the research seeks to increase the universality of VSM, contributing to a better understanding of it and a better and greater formalization of it in favor of its acceptance and its practical use, seeking in this way to palliate some critical principals related to its abstraction and limited applicability and to increase its rigor and validity as an instrument for the diagnosis and the design of viable organizations (Puche-Regaliza et al., 2017).

The novelty of this study is therefore principally found in the application of the VSM to the organizational structure of a software project in such a way that it allows us to detect key factors in its success. Besides, building on the validation of this proposal through the completion of a quantitative empirical analysis, this study also offers a prediction mathematical model that relates key factors with the success of the project (Puche-Regaliza et al., 2017)

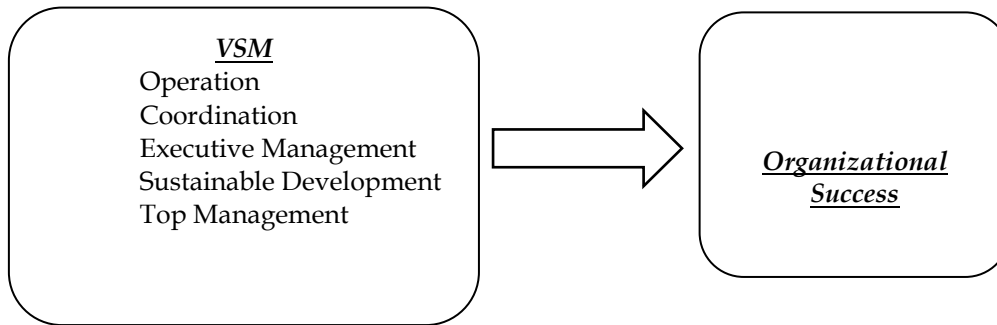
Research Methodology

This section presents the research methodology adopted in this paper, including research design, sample selection methods and data gathering techniques. As the objective of this study is to investigate the challenges faced by security companies in Egypt and the role of VSM in helping these companies achieve organization success, the researcher chose to adopt an exploratory research approach using quantitative tools.

Quantitative research is an objective measurement and statistical analysis of numeric data to understand and explain observable phenomena (Ary, et al., 2018). The purpose of this method is to establish either relationships or cause and effect between variables. It requires large samples examined through statistical instruments to test a pre-existing theory. This study used the questionnaire survey to confirm the hypotheses and research framework. The questionnaires used for this study included twenty-five questions divided among eight research constructs retrieved from the literature: Operation, Coordination, Executive Management, Sustainable Development, Top Management, and Organizational Success.

The questionnaire answers were measured based on a five-point scale where 1=Strongly Disagree and 5=Strongly Agree. Besides, the questionnaire included five demographics variables about the respondent's personal information including gender, experience, organization volume, sector and department. A simple random probability sampling technique was used for the questionnaires. The questionnaires were self-administered and distributed by the researcher to employees from the targeted security companies.

The research framework could be illustrated using the figure below.



The research hypotheses could be stated as follows:

H₁: There is a significant relationship between development of VSM and Organization Success

H₂: There is a significant relationship between development of Operation and Organization Success

H₃: There is a significant relationship between development of Coordination and Organization Success

H₄: There is a significant relationship between development of Executive Management and Organization Success

H₅: There is a significant relationship between Sustainable Development and Organization Success

H₆: There is a significant relationship between development of Top Management and Organization Success

Results and Findings

This section tests the relationship between VSM model and Organization Success. The VSM, including its five main dimensions are the independent variables, while the Organization Success is considered as the dependent variable of the model. As a preliminary step, the descriptive analysis had been observed for the research variables. Then, the correlation, regression and SEM analysis had been fitted for the research hypotheses.

Descriptive Analysis

The descriptive statistics is a way to illustrate and understand characteristics of a specific data set, by making short summaries about the sample and measures of the data. Frequency statistics sum the number of times that each variable is repeated. In the following section, means, standard deviations and frequency statistics will be conducted on the research variables.

Table 1 shows the frequency tables for the research variables, where it could be observed that most responses are in the agreement zone, yet some of the responses are in the disagreement zone which means that Operation, Coordination, Executive Management, Sustainable Development, Top Management and Organizational Success need to be improved.

Table 1 Descriptive Analysis for the Research Variables

Variables	Mean	Std. Deviation	Frequencies				
			1	2	3	4	5
Operation	3.6667	0.94148	18	15	142	191	78
Coordination	3.6194	0.84281	0	50	124	215	55
Executive Management	3.5586	1.05115	5	94	74	190	81
Sustainable Development	3.7703	0.88704	15	16	99	240	74
Top Management	3.619	0.8769	8	29	152	190	65

Organizational Success 3.6441 0.93318 3 63 93 215 70

4.2. Hypotheses Testing

This section discusses the hypotheses testing of the research framework through using correlation, regression and SEM analysis. The SPSS program is used for correlation and regression analysis, while AMOS is used for the SEM analysis. Table 2 shows the correlation matrix between Operation, Coordination, Executive Management, Sustainable Development, Top Management, and Organizational Success. It is found that there is a significant positive relationship between Operation, Coordination, Executive Management, Sustainable Development, Top Management, and Organizational Success as P-value is 0.000 for all relationships and the coefficients are 0.691, 0.529, 0.556, 0.655, 0.515 respectively.

Table 2 Correlation Matrix between VSM and Organizational Success

		1	2	3	4	5	6
Operation	Correlation Coefficient	1					
	Sig. (2-tailed)	.					
	N	444					
Coordination	Correlation Coefficient	.613**	1				
	Sig. (2-tailed)	0.000	.				
	N	444	444				
Executive Management	Correlation Coefficient	.629**	.540**	1			
	Sig. (2-tailed)	0.000	0.000	.			
	N	444	444	444			
Sustainable Development	Correlation Coefficient	.706**	.520**	.553**	1		
	Sig. (2-tailed)	0.000	0.000	0.000	.		
	N	444	444	444	444		
Top Management	Correlation Coefficient	.471**	.495**	.562**	.587**	1	
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	.	
	N	444	444	444	444	444	
Organizational Success	Correlation Coefficient	.691**	.529**	.556**	.655**	.515**	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	.
	N	444	444	444	444	444	444

Table 3 shows the regression model fitted for the effect of VSM dimensions; Operation, Coordination, Executive Management, Sustainable Development, Top Management, on Organizational Success. It illustrates that there is a significant positive effect of Operation, Sustainable Development, and Top Management on Organizational Success as the regression coefficients are 0.373, 0.241, 0.130 and P-values are 0.000, 0.000, 0.005 respectively. Moreover, it is found that there is insignificant effect of Coordination and Executive Management on Organizational Success as P-value is 0.062, 0.077 respectively. Moreover, the R squared is 0.585 which means 0.585 of the variation of the organizational Success can be explained by the independent variables together.

Table 2 Regression Model Fitted for VSM Effect on Organizational Success

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	R Square
	B	Std. Error	Beta			
(Constant)	.337	.147		2.297	.022	0.585
Operation	.373	.053	.377	7.066	.000	
Coordination	.086	.046	.078	1.871	.062	
Executive Management	.070	.039	.079	1.770	.077	
Sustainable Development	.241	.054	.229	4.496	.000	
Top Management	.130	.046	.122	2.813	.005	

Table 4 shows the SEM analysis of VSM; Operation, Coordination, Executive Management, Sustainable Development, and Top Management on Organizational Success. It could be observed that there is a positive significant influence of VSM; Operation and Top Management on Organizational Success, as the corresponding estimates is 0.583 and 0.265, as well as P-values are all less than 0.05. On the other hand, Coordination, Executive Management, and Sustainable Development are shown to have an insignificant influence on Organizational Success, as p-values are greater than 0.05. Also, the R square is 0.786, which means that the VSM dimensions explain 78.6% of the variation in Organizational Success.

Table 3 SEM Analysis of VSM Effect on Organizational Success

			Estimate	P-value	R Square
Organizational Success	<---	Operation	.538	***	0.786
Organizational Success	<---	Coordination	-.016	.846	
Organizational Success	<---	Executive Management	-.013	.782	
Organizational Success	<---	Sustainable Development	.266	.136	
Organizational Success	<---	Top Management	.265	.040	

It should be noted that the model fit indices; CMIN/df = 1.515, GFI = 0.952, CFI = 0.986, AGFI= 0.933, and RMSEA = 0.034 are all within their acceptable levels. The SEM model conducted is illustrated in the Figure 1, where the measurement model had been fitted with the remaining statements after deleting items with weak loadings. Modification indices had been tested to reach the optimum fit of the model.

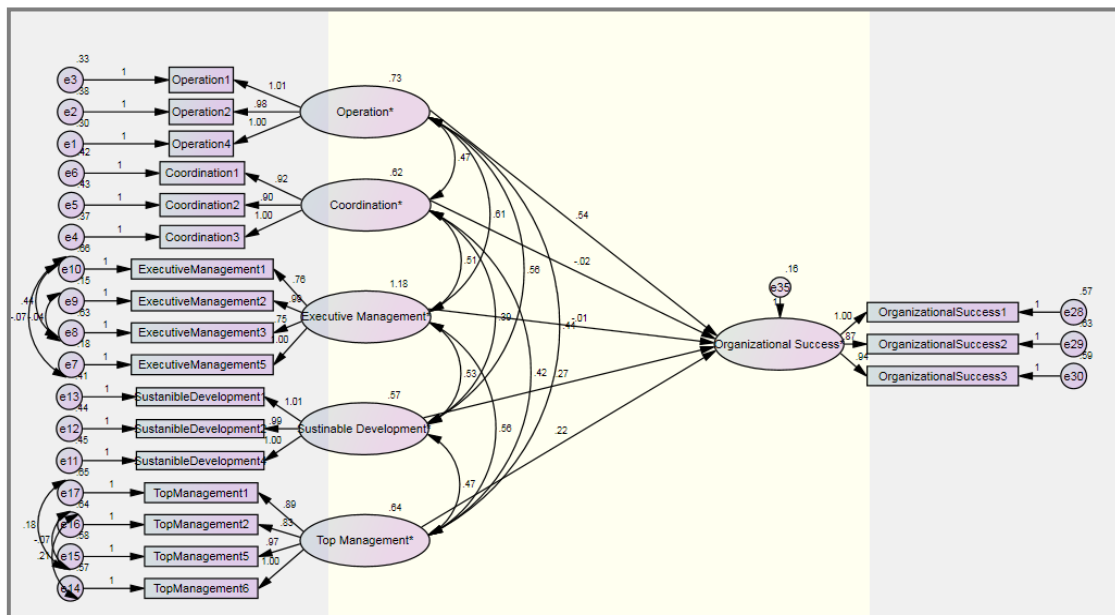


Figure 1 SEM Analysis of VSM Effect on Organizational Success

Therefore, the first and fifth hypotheses are supported as there is a significant relation between Operation and Organizational Success as well as Top management and Organizational Success. On the other hand, the second, third and fourth hypotheses are rejected as there is an insignificant relation between each of Coordination, Executive Management, Sustainable Development and Organizational Success.

Conclusion

VSM has proved to be a powerful and good system, as it facilitated the work in an extreme way. Analysis showed that there is a problem and lack of coordination between executive management. Organizations’ viability is a complex issue, owing to the high numbers of factors affecting it. The viable system model is a useful frame within which to consider these possibilities and to build capacity for

concerted action. Our common survival may well depend on our ability “live together” and to find local ways to collaborate in the face of potential risks and to work together to prevent them or to blunt their effect. A suggestion for future research is to examine, on a broader empirical basis, whether the claims made by the VSM theory hold true.

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