A Systemic Approach to Sub-cultural Interaction

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Abstract

In contemporary studies, corporate culture is taken as interactions rather than essence. However, traditional approach to corporate culture assumes the existence of an overarching unitary culture and ignores the effects of interacting sub-cultures. This inadequacy is attributed to the lack of a plausible sub-cultural referent framework that effectively differentiates the culture of organization into sub-cultures. A new approach to operationalize this new perspective is thus needed. The purpose of this paper is to use the Viable System Model for delineating functional sub-cultures and measure the effect of sub-cultural interaction on performance in workplace.

Keywords: Organizational Behavior, Culture, Subculture, Systems, Viable System Model, Performance.

1. Introduction: Ambiguity in the Existence of Interacting Sub-cultures

In the 1980s, most studies on corporate culture focused on the effect of culture on performance and the strong culture theory took the center stage (Deal and Kennedy, 1988; Kotter and Heskett, 1992; Ouchi 1981; Waterman and Peters 1982). Advocates of the strong culture theory take cultural refinement as a panacea for improving performance (Deal and Kennedy, 1988;Ouchi, 1981; Peters and Waterman, 1982). Corporate culture is thus reduced by pragmatic theorists to simple and measurable ideologies; the stronger the commonly held culture is, the better performance will be. This fad led researchers (in the 1980s) to operationalize the concept by using empirical measurement and culture-models (Deal and Kennedy, 1988; Douglas, 1982; Handy, 1985, 1991;Ouchi, 1981; Peters and Waterman, 1982; Schein 1985). From this perspective, culture becomes a managerial consideration enjoying the same status as organizational structure, size and technology, and is manipulable (Martin P., 2000). Cultural complexity at the functional and interactional level is largely ignored.

Following the disappointing performance of some so called 'Excellent Companies', the validity of the strong culture approach was queried and new trends in cultural study emerged. Siehl and Martin (1990) postulated that the promise of good performance due to a strong corporate culture is "Unsustainable". Researchers started to combat the complexity of corporate culture through a diversity of different approaches. Larsen (1998) summarized these approaches into three trends namely "from integration to differentiation", "from clarity to ambiguity" and "from culture as essence to culture as interaction". Both differentiation and ambiguity infer a complex interactional view on organizational culture. With this trend in mind, theorists embark in a new course and continue their quest for establishing a direct link between organizational culture and performance link (Li and Jones 2010, Rana A.L. 2012, Fred C. L. 2011), Mariama Z et. al. 2013).Though many reputable theorists have reiterated the very complex nature of corporate culture, the more fundamental arena of how culture should be differentiated and the way such differentiated cultures interact to take effects remain largely unexplored. To fill up this theoretical gap, the Viable System Model (Beer 1985) is recommended as a referent framework and the effect of functional subcultures on performance is measured (Li and Jones 2010).

2. from Structural Models to Sub-cultural Referent Framework

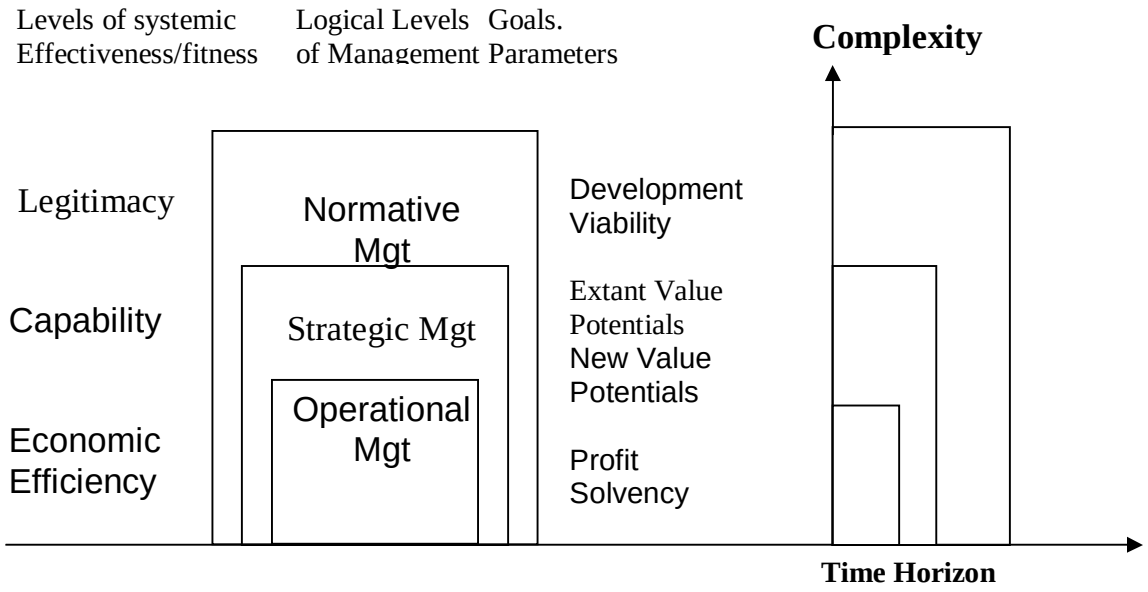
Under the tenet of organizational structure, Parsons (1951)puts forward the idea of functional imperatives. His theory, which is commonly referred to as the AGIL model, articulates that an organization, in order to continually exist, must fulfill four basic functional imperatives:

- Adaptation : adapting to the environment;
- Goal Attainment: attaining system goals;
- Integration : integrating the efforts of internal subsystems; and
- Latency: maintaining normative patterns and managing the strains and tensions of actors.

While the question of whether different functions possess different functional sub-cultures lies unanswered, Schwaninger (1993:56) postulates a model of the different goals of the different levels of an organization, which include the Normative Management, the Strategic Management and the Operative Management. According to Schwaninger (1993:56),"one and the same system must govern itself with the help of control variables that may contradict each other because they belong to different logical levels:

- *At the operational level, the criterion is that of economic efficiency, mainly in terms of profitability;*
- *At the strategic level, it is capability in both the competitive and the cooperative sense;*
- *At the normative level it is legitimacy, defined as the potential to fulfil the claims of all relevant stakeholders."*Figure 1 below is the Three Levels Model postulated by Schwaninger.

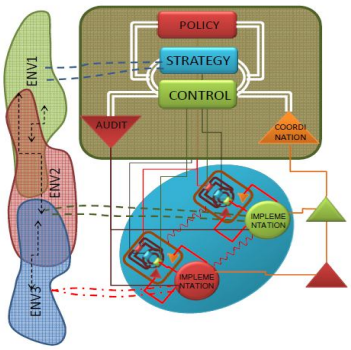
Figure 1: Three levels of Organizational Fitness / Systemic Effectiveness



In Figure 1, the difference between the three levels in terms of their time horizon and role complexity is noted. The difference in the cultures of different management levels is thus implied as time and uncertainty avoidance (for coping with complexity); these two aspects are commonly accepted cultural dimensions (Hofstede, 1980, 1991). It follows that these different levels, under the influence of their disparate functional goals, require different functional cultures in order to achieve their functional goals.

Another structural model based on systems theory is Beer's (1985) Viable System Model (VSM). The idea of VSM (Beer, 1985) is similar to Parsons' functional imperatives. According to Beer (1985), a system, if it is to remain viable, must contain certain elements or functions. And these functions must be able to satisfy the needs of the larger viable system in order to sustain its viability. Such a sustainable system is called a Viable System. Figure 2 below is a simplified schematic of the Viable System Model.

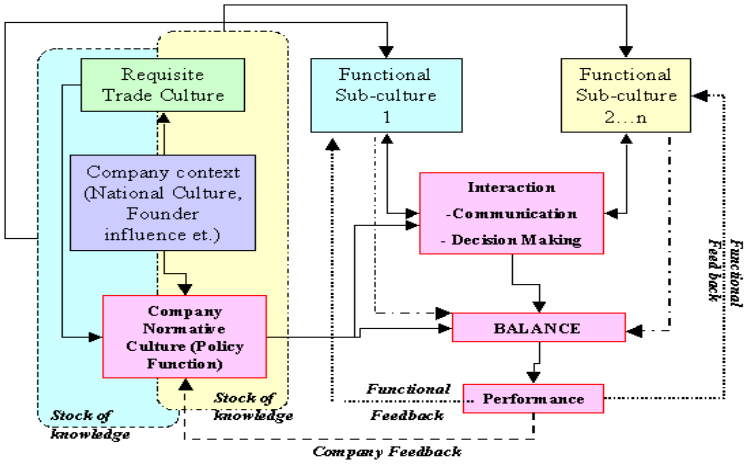
Figure 2: A simplified schematic of a Viable System Model adapted from Beer (1985).



Referring to Figure 2, the interaction mediating between the functions of a VSM is best explained by starting from the shop-floor level. Similar to the Closed System model (Thompson, 1967), the Production function (i.e. Implementation) imports resources and exports them in a processed form under the Control function. The organization seeks to reduce uncertainty and irregularity through a stringent Control function in realizing the pre-set goals established by the Policy function. When the production process grows and is differentiated, the Co-ordination function is introduced to integrate the work of the embedded sub-processes. The Production system, at this time a collection of differentiated processes, is subject to the surveillance of the Audit function which serves to putting deviated process back on normal track and thus preventing unexpected outcomes. As the environment or market changes and necessitates a corresponding change in the system, the Strategy function internalizes external changes. The pace and magnitude of change is a major management decision and is submitted to the Policy function for a balanced decision - one that balances the demands of the environment (Strategy function) and the need to maintain stability (Control function). The five functions (Audit and Co-ordination together are counted as one function) are integrated together with communication channels to which both quality and quantity are vital to the system's success.

The interactions among the sub-systems of the VSM, as articulated by Li and Jones (2010), are guided by the functional subcultures of these interacting functions. With the definition of interaction provided by Scott (1961), and the inspiration of the VSM, a corresponding Functional Sub-cultural Interactional Model can now be conceptualized in Figure 3 below.

Figure 3: The Functional Sub-cultural Interactional Model



In Figure 3, the inherent risks and contextual characteristics specific to the trade in which the company is participating, together with the normative culture set by the founder or leader of the company and the requisite functional or level culture form a common cultural pool. Since functional goals are inevitably different, or even in conflict with each other, each function combines different elements from the common cultural pool together with its own past experiences (Schutz 1932) to form its specific "stock of knowledge." This stock of knowledge, either as a response to the pressure from the Policy Function or as a taken for granted practice for problem solving, circumscribes the sub-culture of that function.

These functional sub-cultures then interact through communication and the decision making processes to maintain a dynamic balance or contextual reality mediating among different functional concerns. In this sense, the interactional influence seeks to maintain a sub-cultural balance (Handy, 1991) without surrendering themselves to forming a unitary culture. Being the legitimate top authoritative function of a company, the Policy Function then manipulates the interactional balance, which sets a direction for the prioritization of functional goals, conflict resolution and resource distribution. This mechanism coincides with the underlying principle of the "Strong Culture" theory (Peters and Waterman, 1982). Each subsystem (in this sense a functional sub-culture) is then closed with the feedback loops to its own subcultural stock of reference to reinforce its sub-cultural identity.

From the organizational effectiveness point of view, if these functions interact in a mutually supportive and accommodating manner that is commensurate with the requirements of the environment, survival is better assured (Li S.K. 2006).

In this sense, the organizational culture is suited to its environment (Gordon, 1991; Kotter and Heskett, 1992). In such a situation, the working sub-cultures of an organization are not necessarily homogeneous; they could be and should be a "mixture" (Handy 1991) of different subcultures. The Sub-cultural Interaction Model in Figure 3 above thus harnesses the essences of the Strong Culture theory (Peters and Waterman, 1982), the Culture of Fit theory (Gordon, 1991; Kotter and Heskett, 1992) and the mixed culture postulation (Handy, 1991; Hofstede, 1991, Martin 1992).

4. Sub cultural Interaction and Performance

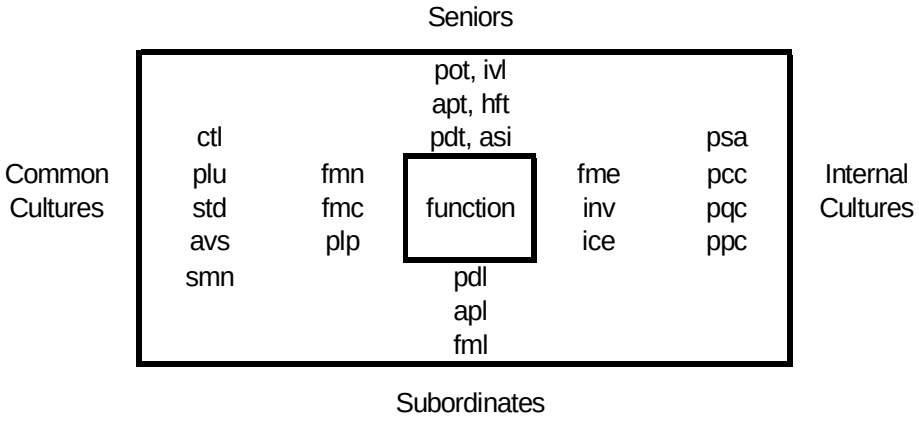
The use of VSM in quantitative analysis is not unprecedented (li and Jones 2010, Schwaninger and Christine Scheef (2016). The association of VSM functions with system viability is re-validated by Schwaninger and Christine Scheef (2016). In this study, the VSM is applied as the referent framework for delineating functional subcultures and for measuring the interactions linking in between pairs of VSM functions.

In order to validate the association between quality of subcultural interactions with performance, a survey has been conducted in Hong Kong on randomly invited construction practitioners. The survey has applied a five-point scale to measure the strength of selected functional subculture dimensions. The interactional variables as indicated in Figure 4 below are then used as the proxy of the characteristics and quality of the interactions mediating in between. The questionnaire consists of three parts. Part I contains eleven questions that are designed to ascertain the respondent's role in terms of VSM functions. The respondent is requested to select the most suitable descriptions of his/her duties from a list of standard answers such as 'Manage all functions of your company' and ''Responsible for a few functions of a project'. The answer to the former question determines whether the respondent is performing the top level Policy function while the latter question indicates that the respondent is working in the frontline Implementation function. Part II contains 24questions that measure the cultural contents of the company's functional subcultures and that of the respondent him/herself. Part III contains five questions for measuring the recent non-financial performance of the company as reported by the respondent. Table 1 below sets out the independent variables used in the survey and Figure 4 indicates the interactional relationship among different variables.

Table 1: The independent variables used in the survey

1	ASI	You consider the authority delegated to you to be seriously inadequate for the efficient accomplishment of your functional goals.
2	PDT	Your supervisor does not expect and will not appreciate you disagreeing with his decisions.
3	PDL	Your subordinates rarely disagree with your decisions.
4	APT	You must wait for the approval of your supervisor before proceeding with any action proposed by you.
5	APL	You require your subordinates to wait for your approval before proceeding with any action proposed by them.
6	FMC	You consider the formality requirements and rules of your company to be unnecessarily strict.
7	FME	You believe that compliance with rules and formality is essential in order to achieve high performance.
8	FMN	Non-compliance with your company's/ supervisor's formality requirements will cause stoppage to the processing of your request.
9	FML	You expect strict compliance with your formality requirement from your subordinates/ colleagues before their request is processed.
10	INV	Conventional methods of work execution are always preferred over innovative (but more risky) methods.
11	PLP	You regard the quantity and quality of planning required by your company to be largely inadequate for achieving high performance.
12	PLU	Irrespective of the extra time and cost, uncertainties are fully assessed and solutions planned before any action is taken.
13	STD	You regard your company's effort and investment in staff and technical development to be largely insufficient for continual improvement.
14	ICE	You consider the internal communication of your company to be adequate for harmonious operations.
15	CTL	You realize that unavoidable conflicts between top management's corporate success considerations and the frontline production/functional concerns always exist.
16	HFT	You resent that top management's decisions usually do not favor your functional/production operation.
17	POT	You set your primary functional/production goals at a higher priority than top management's concerns.
18	IVL	Your supervisor never involves you in major decisions.
19	AVS	You have observed that people in your company value personal advancement much higher than employment security.
20	SMN	You believe that your company's method of staff motivation is more negative through punishment than positive through extra rewards.
21	PSA	You believe that avoiding safety risks is a higher priority than cost, quality and progress concerns.
22	PCC	You believe that the avoidance of extra costs should have a higher priority than safety, quality and progress concerns.
23	PQC	You believe that avoiding quality risks is a higher priority than cost, safety and progress concerns.
24	PPC	You believe that the avoidance of delay risks should have a higher priority than cost, quality and safety concerns.

Figure 4: Interactional Variables



In Figure 4, the 24 variables are categorized into 4 categories. Those on the left are designed to measure the common culture of the company while those on the right are for measuring subcultural traits. The remaining variable below and above the center box are upward and downward interactional variables that reflect the quality of the interactions among different functions. Upon data analysis with factor analysis and then regression, it is found that some variables are combinable and the combined variables show close association with performance.

5. The influence of the policy function subculture

It is expected that the policy function is played by the top executives of company and the data collected also indicate this reality. Upon statistical analysis on the data categorized under the policy function, two variables namely PDL (your subordinates rarely disagree with your decisions) and POT (you set your primary functional/production goals at a higher priority than top management's concerns), have indicated a strong association with performance. These two dimensions are interactional in nature - PDL is the measure of the power distance between the Policy function and the other functions working below it while POT highlights the top executive's tendency to deviate from the decision from above for protecting the performance of the company under him/her. Therefore, these two variables, which are combined into a composite variable named Executive Assertiveness (EXA), can be taken as the proxy of the ability of the policy function in pursuing performance. In the regression model, these two independent variables account for an R squared of 0.422 (significance level 0.009); they are significant indicators of performance– the stronger the EXA is, the better the overall performance of the company will be.We do not expect to see a dictator type of policy culture will contribute to performance; however, it is possible that the power distance is needed for a quick response to will add to the efficiency of a company. Yet this finding might be specific to the construction industry which is frequently regarded as a strong man business.

Interaction between the Policy Function and Implementation

Starting from the bottom up, a factor analysis is conducted on the variables from the implementation dataset. It is found that the variables ASI (You consider the authority delegated to you to be seriously inadequate for the efficient accomplishment of your functional goals), IVL(Your supervisor never involves you in major decisions), POT (You set your primary functional/production goals at a higher priority than top management's concerns) and HFT(You resent that top management's decisions usually do not favor your functional/production operation) are closely related and a single factor labeled Interaction Quality Implementation (IAQI).is identified to represent them.

From regression modeling, IAQI is found to be a moderately strong negative performance predicator. Therefore, a decrease in IAQI predicts an increase in performance score. A decrease in IAQI means a decrease in:

- ASI (You consider the authority delegated to you to be seriously inadequate for the efficient accomplishment of your functional goals),
- IVL (Your supervisor never involves you in major decisions),

- HFT (You resent that top management's decisions usually do not favor your functional/production operation), and
- POT (You set your primary functional/production goals at a higher priority than top management's concerns).

From the above findings, organizational performance can improve by increasing the degree of authority delegated to frontline management (decrease in ASI); and involving them in making decisions (decrease in IVL). These changes will in turn reduce the hard feelings of frontline management (a decrease in HFT), which will result in a better balance between top management's concerns and production goals (a decrease in POT).

6. Interaction between the Control Function and seniors

With the same objective, the same statistical procedure is repeated to analyze the interaction between the Control and the seniors. This time, two variables namely ASI (You consider the authority delegated to you to be seriously inadequate for the efficient accomplishment of your functional goals) and HFT (You resent that top management's decisions usually do not favor your functional/production operation) are combined into a new variable titled Interaction Quality Control (IAQC).

From regression modeling, we see that the IAQC is a moderate performance predictor (R squared = 0.203) with a significance level of 0.041. This means that performance can improve by decreasing the level of authority delegated to the Control function (+ASI: You consider the authority delegated to you to be seriously inadequate for the efficient accomplishment of your functional goals) and that any inadequacy of authority delegation will inevitably lead to the development of hard feelings by the Control function (+HFT: You resent that top management's decisions usually do not favor your functional/production operation). This equivocal relationship can be explained by the context of the construction industry and systems theory.

From section 5 above, an enhanced interaction between top management and the Implementation function means an enhancement of the direct feedback from the front line. The feedback information is then applied in formulating corrective actions that are to be implemented by the Control function. Since the Control function is delegated the authority to control and alter the operations of frontline managers, it is logical for the Policy function to be more vigilant of the Control function which has the power to reverse the decision of top management. Therefore, in order to ensure the effective implementation of the Policy function's decision, top management becomes more skeptical toward the Control function. In layman terms, performance can be improved if top management is open to frontline management and more vigilant with middle management - those acting on its behalf to control production operations.

7. Interaction between the Audit Function and seniors

The factor analysis of the Audit dataset indicates a strong common factor that represents the five interactional variables, they are:

- ASI (You consider the authority delegated to you to be seriously inadequate for the efficient accomplishment of your functional goals),
- PDT (Your supervisor does not expect and will not appreciate you disagreeing with his decisions),
- IVL (Your supervisor never involves you in major decisions),
- POT (You set your primary functional/production goals at a higher priority than top management's concerns), and
- HFT (You resent that top management's decisions usually do not favor your functional/production operation).

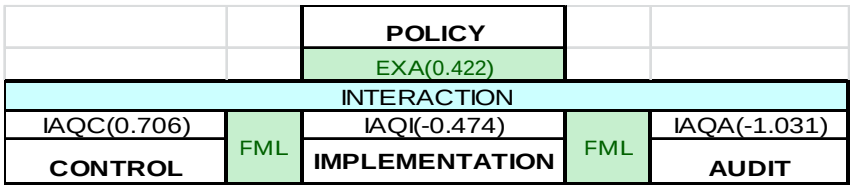
The combined variable is labeled Interaction Quality Audit (IAQA). IAQA is a weak and negative performance predictor (R squared = 0.164) with a significance level of 0.085. This means that performance increases slightly with a decrease in the IAQA score. A decrease in IAQA means similar decreases in all of its constituent variables. Literally, this means that the Policy function should delegate more power to the Audit function (decrease ASI: You consider the authority delegated to you to be seriously inadequate for the efficient accomplishment of your functional goals), listen to its advice (decrease PDT), and involve the Audit function more in decision making (decrease IVL). This management change will lead to a corresponding decrease in levels of hard feelings (decrease in HFT) and counter action (decrease in POT) against top management.

This proves that the sub-culture of the Audit function, as manifested through HFT and POT, is sensitive to the way their superiors interact with the function. This common sense reaction will lead to an improvement in organizational performance.

8. Conclusion

The findings of this study can be summarized with a simple diagram as depicted in Figure 5 below.
Figure 5: The relationship between key variables applied in the survey.

***Figures in boxes are the regression coefficients of the sub-cultural variable**



Referring to Figure 5, we find that vertical downward interaction always involves power (PDL: Your supervisor does not expect and will not appreciate you disagreeing with his decisions) under the Policy. Conversely, the negative association between IAQI and performance indicates an upward expectation for working freedom. This conflict leads to the finding on POT (You set your primary functional/production goals at a higher priority than top management's concerns) at the implementation function. So it is wise for the top management to bring it under control through improving communication with frontline staff. Whereas horizontal interaction tends to be formality orientated (FML:You expect strict compliance with your formality requirement from your subordinates/ colleagues before their request is processed)between control, Implementation and Audit functions. In conclusion, survey findings support that Hong Kong construction companies can improve their performance if top management (Policy function):

- Delegates more power to frontline management (Implementation function), to fuel its sub-cultural needs of higher degree of flexibility and quick responses.
- Interacts more intimately with frontline management, listen to their suggestions and involve them in decision making. This management practice will maintain the positive sub-culture of frontline management and prevent them from becoming reactive.
- tightens control of frontline through the middle managers (Control function) by acting more vigilantly toward the Control function to prevent it from deviating from the decisions of the Policy function; and
- Works more closely with the Audit function to maintain the functional culture and value system of the auditing profession through closer interaction and to prevent it from acting in an acquiescent manner.

This study also shows that subcultures of an organization also exhibit the characteristics of a system; each functional subculture, as demarcated by its specific function, possesses its own ethos, norms and values that interact to realize its own functional goals and also the overall goals of the organization. As supported by the inference and findings of the extant reviews on VSM (Beer 1979, 1981, 1985, 1989; Flood 1993, Espejo and Harnden, 1996; Foss, 1989; Leonard, 1989; Waelchli, 1989, Li and Jones 2010, Fred C. L. 2011, Rana A.L. 2012, Mariama Z et. al. 2013, Schwaninger and Christine Scheef, 2016),it is concluded that VSM is a plausible conceptual tool for studying subculture interaction in the sense that:

- It provides a common platform for studying across functional boundaries;
- It offers a theory that explains the structure of a subculture system;
- It offers a theory of the way subsystems or functional subcultures interact; and
- Its high analytic power suits the high complexity of organizational culture systems.

With the VSM as the structural referent frame and the sub-cultural Interaction Model as analysing tool, it is now possible to harness the complexity of sub-cultural interaction and find out its effect on performance. The findings of this study also throw new light on the way to improve performance through refining the interactions among different functions.

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