

Managing Corruption: An Anti-Corruption Reform Model

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Abstract

In this research a conceptual reform model is proposed in an anticorruption measure framework. A survey study was conducted to gather the required data from the public sectors in Kuwait and a structured questionnaire was designed and validated. A causal model was also identified and established, by utilizing the structural equation modeling (SEM) technique. The framework is designed to assess the impact of procedural transparency and communication transparency in each organization (treated as exogeneous variables) on outcome variables reflecting the quality of its governance, which are the practice of strategic planning within the organization, its perceived effective performance and its competitiveness. Moderating variables like integrity against corruption, accountability, respect for the law, integrity preventive measures and fairness are used to assess the impact of the exogeneous variables. On the basis of the findings, a model is fitted, and hypotheses regarding direct, indirect and total effects of the contextual and moderating variables on the outcome variables are tested. The main conclusion in this research work rests on the dominating effects of communication transparency on the outcome variables.

1. Introduction

1.1 Corruption and Anticorruption Measures

Corruption is a universal phenomenon. It is not restricted to certain race, certain ethnic group, certain region or certain nationality, but it is there in all countries whether developing or developed, in all organizations whether charitable or profitable, all sectors whether governmental or private. It has been debated that corruption is a destructive crime that ruins the quality of life, challenges the fairness, stability and efficiency of a society, causes injustice, weakens competitive edges and inflates business costs (Sampford, et al., 2006). Corruption costs billions of dollars every year to the world (UNDP, 2008). The World Bank Institute estimates that the total bribes in a year are about \$1 trillion (\$1 trillion is about 3 percent of world GDP) (Stevenson, 2005). Corruption is the consequence of the failure of the national governance system (OECD, 2008) and a reflection of a nation's unstable legal, economic, cultural and political institutions (Stevenson, 2005). It has been argued that corruption contributes to low growth rate of many developing countries (Mauro(1995), and is considered as a key factor in preventing development in many countries in the world (Urta(2007). Contrary to this view early analysis suggested that lower levels of corruptions were associated with greater growth and investment levels(Lnack and Keefer, Mauro, and Knack 2003). Lambsdorff (2007) states that, from centuries back onwards corruption is a characteristic of public institutions. He also discloses that corruption is a reliable indicator of weakness in a system and it reflects government's failure. Therefore to challenge corruption it requires the functioning of efficient social and governmental institutions (Transparency International, 2008), and the support of an international community which regularly measure corruption levels and anti-corruptions programs' progress and performances.

It is a challenge to measure corruption directly or indirectly as corruption is difficult to measure, and is said as "what cannot be measured, cannot be improved". In order to create a standardized reform model that can be applied on public institutions, as a first step, an interrelationship between different anticorruption components in the model should be thoroughly investigated to determine the launch of a reform process.

Urta (2007) emphasized that corruption is essentially a difficult reality to measure and before 1990 however, measures of corruptions and anticorruption measures lacked both consistency and reliability. Then, directing research towards labor systematization and standardization has

offered possible successful indirect ways to measure corruption or anticorruption (Kaufmann et al. (2006)).

1.2 The Anticorruption Measures

Klitgaard (UNDP, 2008) formulated a simple equation, which identify the causes of corruption as a monopoly control of public officials exercising discretionary powers in the absence of accountability systems. The corruption equation according to Klitgaard takes the form:

$$\text{Corruption} = \text{Monopoly} + \text{Discretion} - \text{Accountability} \quad (1)$$

Equation (1) indicates that as the monopoly increases corruption also increases. Also, discretionary powers in the absence of a responsible system has positive effect on corruption. On the other hand the more the system is accountable the less corrupted it is.

Although the model gave a guideline to the reform model, a comprehensive and detailed measure of its components are not yet identified. The objective of this research is to study the cause and effect relation between the different components of the anticorruption constructs of the model which includes accountability, integrity and transparency. Although Klitgaard's model was the base line for the formulation of the anticorruption constructs, other reform measures that is practicing in different countries (fairness, effectiveness and competitiveness) were also included in our model. Moreover, within the conceptual framework outlined by equation (1), the main constructs were, mainly, devised from experiences, eyewitness and other countries anticorruption measure practices and, definitely, the conceptual sense of each construct. In the following section a detailed account for each construct is provided.

1.3 The Exogenous variables

The exogenous (input variables) are stimulating variables that cause and initiate the subsequent direct and indirect effects (Hair, et al., 1998: 646). In this model, two main exogenous constructs are considered. They are:

- a) **Procedural Transparency:** refers to the requirement by which all subsequent procedures, steps and activities are obvious and can be executed without any mistake and without any further assistance. It includes
 - Clear organizational goals.
 - Availability of documented procedures manual.
 - Procedures manual is applied & updated when required.
 - Each employee is introduced to his rights and duties.

- b) **Communication Transparency:** refers to the ease and lucidity of transferring knowledge between different levels. It includes:
- Effective communication channels between different managerial levels.
 - Employees are informed and involved with new ideas or projects.
 - Ease of employees to contact officials to inform them with proposals or complaints.
 - Open meetings between top management and staff
 - Transparent dealing with staff by officers.

1.4 Moderating Variables

Moderating (mediating) variables are those variables that moderates the relationship between the exogenous and the outcome variables for the purpose of enhancing or reducing the mediating effect (Hair, et al., 1998), depending on the nature of the relationship. In the current model the mediating effect is taking place through the following constructs:

- a) **Accountability and respect for the Law:** refers to holding public officials accountable for their decisions and actions and ensuring compliance with standards. It includes:
- Organization comply with the rules & regulations that organize its work.
 - Organization apply rules and systems regarding recruitment, promotion or incentives.
 - Organization applies an effective internal control system.
 - Organization applies rules and standards in appointing officials for supervisory posts.
 - Organization considers the staff complaints and tries to solve them.
- b) **Integrity against Corruption:** refers to the misuse of public authority for private gain and welfare. It includes:
- Using public resources for personal benefits.
 - Financial corruption by officials/employees.
 - Administrative corruption by officials/employees.
- c) **Integrity- Preventive measures:** This refers to preventive measure that the public institution needs to be adopted. It includes having professional code of ethics, the implementation of such ethics, encouraging employees to report any corruption acts and ethically

qualifying those candidates for positions that might be exposed to corruption.

- Corruption prone position in organisations must be administered by person who has exhibited ethical values in his/ her career history.
 - Organization has professional and standards code of ethics.
 - Application of code of ethics guidelines.
 - Encouraging employees to report corruption with out fear.
- d) **Fairness:** This refers to treat all employees fairly and equitably.

It includes:

- Equally and fair implementation of merit-demerit principle among staff.
- Employees do not have the feeling of injustice from seniors in charge.
- Organization follows standards & rules in selecting employees for supervisory positions.
- Work load is fairly distributed among employees.
- Administration decisions are applied on all staff with no exception.

1.5 Outcome Variables

Output variables are associated with implementing or engaging with consequence effects (direct and indirect effects and their interaction) of exogenous and mediator variables (Hair, et al., 1998).

- a) **Effectiveness - Strategic Planning:** Effectiveness in a broad conception is the idea of goal achievement. it starts from the formulation of the institution's strategic plan and ends with the realization of these plans or goals. It includes:

- Organization has a strategic and operational plan.
- Organization is committed to implement its strategic plan.
- Organization is committed to avoid from creating new structures or modifying current one unless it is in accordance with work requirements.

- Organization is able to create and manage changes efficiently.
- b) **Effective Performance:** It acknowledges the work of staff, addresses areas in need of improvement and identifies professional training that will support the development of the organization and the staff. It includes:
- Simple procedures for services provided to public.
 - Stating a time span for achievements.
 - Measures achievement percentage annually.
 - Monitors staff performance.
- c) **Competitiveness:** It refers to the state of being competitive in terms of having an encouraging work environment. It includes
- Involvement of employees in decision making or problem solving.
 - Satisfaction with the salary.
 - Effective evaluation system of staff performance.
 - Attractive salaries & wages scales that are competent & retain excellent employees
 - Encourages modern principles and innovative ideas needed for work development.
 - Efficient leadership that has the desire to create a positive change.
 - The work environment is encouraging & motivating the employees.
 - Overall satisfaction with the organization.

2. Research Objective

The main objective of this paper is to investigate the casual relationship between different components of anticorruption measurements in the public-sector through a reform measurement system that support the standards of integrity, responsibility and corruption control. The intended reform model should link the components of reform measurement, discussed in the previous section, to anti-corruption requirements. It is also the objective of this study to identify the most influential determinants of anti-corruption measures. Towards this aim, a survey study was designed, a structured questionnaire was also prepared and validated. The questionnaire includes and addresses the anticorruption constructs discussed previously. Our specific aim is to test the following set of direct, indirect and total effects.

2.1 Hypothesis related to direct effect

Hypothesis H_{a1} to H_{a14} deals with the direct effect of exogenous variables (procedural transparency and communication transparency) on endogenous and outcome variables. Refer appendix A for hypothesis. Accordingly procedural transparency has significant positive effect on accountability, integrity preventive measures, fairness, integrity effective performance, competitiveness and has significant negative effects on integrity against corruption and effective strategic planning. At the same time communication transparency has significant positive effect on integrity preventive measures, fairness, effective strategic planning, effective performance, competitiveness and has negative effect on integrity against corruption and accountability.

Hypotheses H_{b1} - H_{b21} (refer appendix B) deals with the direct effect of endogenous variables on other endogenous and outcome variables. Accordingly integrity against corruption has significant negative effect on accountability, integrity prevention measures, fairness, effective strategic planning and competitiveness and significant positive effect on effective performance. Accountability has significant positive effect on fairness, effective strategic planning, effective performance and competitiveness. Integrity preventive measures has significant positive effect on accountability, fairness, effective strategic planning, effective performance and competitiveness. Fairness has significant positive effect on effective strategic planning, effective performance and competitiveness. Effective strategic planning has significant positive effect on effective performance and competitiveness and effective performance has significant positive effect on competitiveness.

Hypotheses H_{c1} - H_{c12} (refer appendix C) deals with the direct effects of endogenous variables on other endogenous and outcome variables. Accordingly accountability has significant positive effects on integrity preventive measures, fairness, strategic planning, effective performance and competitiveness and has significant negative effect on integrity against corruption. Fairness has significant positive effect on strategic planning, effective performance and competitiveness. Strategic planning has significant positive effect on fairness, competitiveness and effective performance.

2.2 Hypothesis related to indirect effect:

Hypotheses $H_{d1} - H_{d5}$ (refer appendix D) deals with the indirect effect of exogenous variables on endogenous and outcome variables. Accordingly integrity against corruption has significant negative indirect effect on accountability, fairness, strategic planning, effective performance and competitiveness. Accountability has significant positive indirect effect on effective performance and competitiveness and negative indirect effect on effective strategic planning. Integrity preventive measures has significant positive indirect effect on fairness, effective strategic planning, effective performance and competitiveness. Fairness has significant positive indirect effect on effective performance and competitiveness and effective performance has significant positive indirect effect on competitiveness.

Hypotheses $H_{e1} - H_{e14}$ (refer appendix E) deals with the indirect effect of exogenous variables on outcome variables. Accordingly Procedural transparency has significant positive indirect effect on accountability, integrity preventive measures, fairness, effective strategic planning, effective performance and competitiveness and significant negative indirect on integrity against corruption. Communication transparency has significant positive indirect effect on accountability, integrity preventive measure, fairness, effective strategic planning, effective performance and competitiveness. Communication transparency has significant negative indirect effect on integrity against corruption.

2.3 Hypothesis related to total effect

Hypotheses $H_{f1} - H_{f20}$ deals with the total effect of endogenous variables on outcome variable. Accordingly integrity against corruption has significant negative total effect on accountability, integrity preventive measures, fairness, effective strategic planning, effective performance and competitiveness. Accountability has a significant positive total effect on fairness, effective strategic planning, effective performance and competitiveness. There is a significant positive total effect of integrity preventive measures on accountability, fairness and effective performance. There is a significant positive total effect of integrity against corruption on effective strategic planning. Fairness has a significant positive effect on effective strategic planning, effective performance and competitiveness. There is a significant positive total effect of effective strategic planning on

effective performance and competitiveness. Effective performance has significant positive total effect on competitiveness.

3. Population and Sample

The population of interest was the public, who are utilizing 28 public service institutions in Kuwait. A stratified random pilot sample was first drawn where, both reliability and validity were statistically tested. After revising the questionnaire, 2000 forms were distributed over the 28 public sectors according to their representations in the entire public sectors using the stratified random sample technique. 1707 completed forms, accounted for 85.35% response rate, were received for analysis. Hence, the correlation matrix between indicator variables was calculated and thoroughly checked to depict any pattern that might exist between different indicators (questions), and also to facilitate the choice of the appropriate conceptual model. Thus, exploratory factor analysis method of data reduction was implemented to reduce the number of questions into a less number of surrogate latent constructs. (Refer appendix Table (1) for the results of the exploratory factor analysis, the reliability of the constructs, the explained variance and the factor loadings of each construct)

4. Fitting the Conceptual Model

Moreover, confirmatory factor analysis technique was also implemented to test the significance of the latent constructs preobtained by the exploratory factor analysis. As a result, structural equation modeling technique (SEM) was utilized to test the proposed model against other alternative models while satisfying measures of goodness of fit recommended in Hair et. al. (1998) and Sharma(1996).

Refer appendix Figure(1) for the fitted SEM model with estimated path coefficients

1) Assessing the Adequacy of the Model

Several measures of goodness of fit were calculated including, Normed Fit Index (NFI) = 0.98, Non-Normed Fit Index (NNFI), Incremental Fit Index (IFI) = 0.98, Relative Fit Index (RFI) = 0.97, Critical N (CN) = 217.08, Root Mean Square Residual (RMR) = 0.058, Standardized RMR = 0.058, Goodness of Fit Index (GFI) = 0.83, Adjusted Goodness of Fit Index (AGFI) = 0.81, Parsimony Normed Fit Index (PNFI) = 0.88, Comparative Fit Index (CFI) = 0.98. All measures of goodness of fit indices indicated that the proposed model is an adequate in fitting the data. In particular, RMR

=0.058(recommended 0.05 or less Hair et. al. (1988)), GFI=0.83, recommended 0.80 or more and AGFI=0.81, recommended 0.80 or more, which are satisfactory measures of goodness of fit , see Hair et. al. 1998) and Sharma(1996) for details). Refer appendix Table (2) for the statistical summary measures of each constructs including construct reliability, variance extracted and the coefficient of determination R^2 of the endogenous variables.

Once the final accepted model is reached, the reliability and unidimensionality of each construct can be assessed. We would like to emphasize that Cranach's α measure of reliability, given in Table (1) does not ensure the unidimensionality of the construct but contrarily assume its exists, (hair et. Al. (1998)). Therefore composite reliability which is a measure of internal consistency is a more reliable measure and is calculated, for each construct , by the following formula

$$\text{Composite Reliability} = \frac{(\sum \text{Standardized loadings})^2}{(\sum \text{Standardized loadings})^2 + \sum |\text{error}|}$$

Table (2), second column presents values of the construct composite reliability. As common practices, composite reliability 70% or more are acceptable, Hair et. al.(1998). As shown in Table (2) all composite reliability are way above the threshold given in Hair et. al.(1998) and Sharma (1996). Another measure of reliability is the variance extracted, the measure evaluates the overall amount of explained variations accounted for by the construct. Variance extracted of 50% (Hair et. al. 1998, and Sharma 1996) or more are considered adequate. The variance extracted is computed by formula

$$\text{Variance extracted} = \frac{\sum(\text{Standardized loadings})^2}{\sum(\text{Standardized loadings})^2 + \sum |\text{error}|}$$

Column 3 of Table (2), shows values of the extracted variance greater than 50% for all constructs, which ensure satisfactory variance extracted.

5. Correlation Structure between Constructs

Having fitted the model, it would be of interest to explain the nature of the relationships between different constructs. Refer appendix Table (3) for the pair wise correlations between all construct variables. There are significant negative correlations between Integrity against corruptions and other anticorruption measures as indicated in the second column. Accountability has strong positive and significant correlation with integrity prevention

measures, fairness, effective strategic planning, effective performance, competitiveness, procedural transparency and communication transparency. Integrity prevention measures has strong positive and significant correlations with fairness, effective strategic planning, effective performance, procedural transparency and communication transparency. Fairness has strong positive correlation with effective strategic planning, effective performance but has weak positive but significant correlation with procedural transparency and strong positive and significant correlation with communication transparency. Competitiveness has strong positive correlations with both procedural transparency and communication transparency. Finally, the two exogenous constructs procedural transparency and communication transparency has strong positive and significant correlation.

6. Path Analysis and Assertion of the Proposed Hypotheses

Our next assertion primarily focuses on testing the proposed research hypotheses. Direct, indirect and total effects between constructs will be thoroughly examined. Each of the proposed hypothesis will be verified with logical reasoning and explanation of the nature of the relationship between different entities whenever relevant.

a) Direct effect of Exogenous on Endogenous variables.

Procedural transparency which ensures compliance with standards, rules and regulations has a significant negative effect (-0.15) on integrity against corruption which supports our hypothesis H_{a1} (P-value=0.000). This conclusion provides a logical and a perceivable reasoning. On the other hand, contrary to what is expected, the results revealed that no significant impact of procedural transparency on the accountability which leads to the rejection of H_{a2} . Although we believe that transparent documents, rules and regulation would hold public official responsible for their action, may be, due to some cultural or traditional practice adopted by the society the anticipated relationship is override. Conversely, procedural transparency has a significant positive effect (0.32) on integrity prevention measures, which supports our H_{a3} (P-value=0.000), because transparent rules and procedures support the implementation of code of ethics and work values and at the same time encourage employees to report any misconduct. While the results supports the hypothesis H_{a4} (P-value =0.001) of positive significant effect of procedural transparency on fairness, still the effect is nominal (0.09). These findings transmit the message that even though clear rules and

procedures would oblige employees to treat people equitably, the effect appears to be not substantial. Regarding the direct effect of procedural transparency on the outcomes variables, the results illustrate that transparent goals and objectives would positively and significantly (0.19) affect the organization capability of implementing its strategic plans and enhance their ability to manage change efficiently, which affirms H_{a5} (P-value=0.000). As the model indicated, effective performance is another outcome which is positively (0.27) and significantly (P-value=0.000) affected by procedure transparency, which leads to confirmation of H_{a6} . One sensible explanation to this relationship could be due to the simplification of the processes through setting clear rules, documentations and regulations of services processes which in turns improves staff productivity, performance and achievements. Finally, procedure transparency shows significant positive impact (0.11) on competitiveness which validates the hypothesis H_{a7} , (P-value=0.000). Although such a direct connection between the two concepts is not obviously clear, a rational reason behind the significance of the relationship could be due to the fact that procedural transparency creates motivating and competitive working environment, and brings harmony into the work climate.

Regarding the direct effect of communication transparency on other endogenous and outcome variables, it is the effective vertical communication channels and regular and consistent open meetings with staff. The results indicated that transparent communication and effective vertical channels has significant negative effect on Integrity against corruption (- 0.33) this conclusion leads to the validation of H_{a8} (P-value=0.000). The conclusion is supported by the fact that effective communication channels introducing rights and duties and gets staff involved with new projects would have negative impacts on the misuse of public resources or power. While procedure transparency has no effect on accountability, communication transparency has strong positive (0.71), and significant (P-value=0.000), effect on accountability. This finding acknowledges validity of H_{a9} . Communication transparency has also strong positive (0.43) and significant (P-value=0.000) effect on integrity prevention measures which supports H_{a10} . Holding honest open meetings with the employees, with good intention, would encourage them to openly talk and report cases of misconduct. Communication transparency, has strong positive (0.70) and significant (P-value 0.000) effect on fairness which support H_{a11} . This is an explainable consequence of holding open

meetings with employees which undoubtedly would break the ice and remove barriers between superior positions and employees and also between staff themselves to bring about rights and obligations in healthy atmosphere. In short, it enhances the “open door” policy to discuss responsibilities, fairness and justice. Communication transparency also has strong positive (0.58) and significant (P-value 0.000) influence on the outcome variable, effective strategic planning which leads to the confirmation of H_{12} . Obviously regular meetings and follow ups that closely monitors the organization motivates commitment and encourages implementation of strategic plans. As expected, communication transparency has positive (0.56) and significant (P-value 0.000) impact on the, outcome variable, effective performance, which supports H_{a13} . Undoubtedly, consistent open meetings with staff allow better monitoring of achievements and improve staff performance and productivity. Finally, the results show a strong positive (0.72) and significant P-value (0.000) effect of communication transparency on competitiveness which supports H_{a14} . This could be due to the reason that effective open channels with top management and getting staff involved in new projects would create competitive working environment. Refer appendix Table (4) for the representations on the direct effect of exogenous on endogenous variables.

As a closing remark of this section, it appears that the communication transparency has much stronger impact on endogenous and outcome variables than procedure transparency. We believe that such result is highly correlated with the Arabian culture in general and Kuwaiti cultural in particular. Here people are reluctant to follow written regulations, rules and guidelines even if they are available. Standardization is unfavorable compared to customization. The effect of culture is deeply rooted and exhibited in their conduct. So communication transparency is a very influential tool for the people to abide any laws or regulations. The influence of communication transparency is more effective and dominates procedural transparency effect for several reasons but it is mainly due to cultural fact. In this culture emotion is inherent in the personality and is the common characteristic of the majority and therefore face to face open talks, and debate are more effective than written procedures and guiding principles.

b) Direct Effects Of Endogenous Variables on Other Endogenous and Outcome Variables

Next, we move to briefly elaborate our findings regarding the direct effect of endogenous constructs on other endogenous and outcome variables. Table (5) indicates that integrity against corruption has negative effect on both accountability (0.25, P-value =0.000) and integrity preventive measures (-0.16, P-value =0.000). The effects are significant and the conclusion support both H_{b1} and H_{b2} . Conversely, integrity corruption measure showed insignificant effects on fairness, effective strategic planning and effective performance, which lead to nonsupport of

respectively. Although the magnitude of the effect of the integrity against corruption on competitiveness measure seems to be very little (0.05), its effect on competitiveness is significant (P-value 0.006) which supports H_{b5} . Accountability has strong positive (0.79) and significant impact (P-value 0.000) on fairness, which supports (H_{1b7}), because when laws and regulation are abided, employees have the feelings of fairness and equal opportunities with no exception. Accountability also has strong (0.46) positive and significant (P-value 0.000) influence on strategic planning which asserts (H_{b8}). Encouraging officials to bear responsibilities and hold them responsible while formulating and implementing the organization strategic action plan will ensure good planning and on time fulfillment and achievement. Conversely, accountability has no significant effects on both effective strategic planning and competitiveness which negate both H_{b9} and H_{b10} respectively. Integrity preventive measures has strong positive (0.27) and significant (P-value 0.000) effect on accountability to affirm (H_{b11}), while it has no significant effect on fairness to reverse (H_{12}). Along the same line, the effects of integrity prevention measure on effective strategic planning (0.05, P-value = 0.045), effective performance (0.06, P-value 0.015) and competitiveness (0.06, P-value 0.005) are significant although their magnitudes are small which validate (H_{b13}), (H_{b14}) and (H_{b15}) respectively. Fairness has strong positive and significant effects on effective strategic planning (0.13, P-value = 0.006), which validates (H_{1b16}), effective performance (0.20, P-value = 0.000) which confirms (H_{b17}) and competitiveness (0.53, P-value =0.000) which asserts (H_{b18}) respectively. Effective strategic planning has strong positive and significant

effects on effective performance (0.73, P-value =0.000), which affirms (H_{b19}), on competitiveness (0.29, P-value =0.000), which supports (H_{120}) . Finally, effective performance has strong positive and significant effect on competitiveness (0.15, P-value 0.008) this validate the claim (H_{b21}). Generally in a glimpse, the results in Table(5), illustrates several important results, accountability, fairness and effective strategic planning lead other endogenous variables in terms of the magnitudes of their effects. Therefore, we stress the importance of adopting and implementing code of ethical values, enforcement of laws and regulations and hold employees responsible for their actions that will undoubtedly create a productive and competitive work environment.

c) Indirect Effects Of Exogenous Variables on Endogenous and Outcome Variables

Table (6) presents the indirect effects of exogenous variables on endogenous and outcomes variables. For brevity we elaborate only strong significant effects. Procedural transparency has significant positive indirect effects on, accountability (0.13, P-value =0.000), integrity preventive measures (0.03, P-value = 0.000), fairness (0.09, P-value 0.000), effective strategic planning (0.08,P-value = 0.000), effective performance (0.19, P-value =0.000) and competitiveness (0.15, P-value = 0.000). These conclusions consolidate our

supporting of (H_{c1}), (H_{c2}), (H_{c3}), (H_{1c4}), (H_{1c5}),) respectively. Communication transparency on the other hand, has positive and significant effects on accountability (0.20, P-value= 0.000), integrity preventive measures (0.06, P-value = 0.000), fairness (0.55, P-value =0.000), effective strategic planning (0.43, P-value =0.000), effective performance (0.65, P-value = 0.000), and competitiveness (0.58, P-value =0.000). These findings validate (H_{c7}), (H_{c8}),

(H_{c9}), (H_{1c10}), (H_{1c11}),). Again, we have noticed that the indirect effect of communication transparency is much stronger than procedural transparency similar to those of the direct effects

discussed in section 2.3.1. Therefore, we may conclude that communication transparency has much stronger effects than procedural transparency in all counts.

d) Indirect Effects Of Exogenous Variables on Endogenous and Outcome Variables

Table (7) exhibits the indirect effects of endogenous variables on other endogenous and outcome variables. Integrity against corruption has significant negative indirect effects on, accountability (-0.04, P-value =0.000), fairness (-0.22, P-value = 0.000), effective strategic planning (-0.17, P-value = 0.000), effective performance (-0.20, P-value 0.000), and competitiveness (-0.20, P-value = 0.000) which support (H_{d1}), (H_{d2}), (H_{d3}), (H_{d4}), and (H_{d5}). Accountability has significant positive indirect effects on strategic planning (0.10, P-value = 0.000), effective performance (0.56, P-value =0.000), competitiveness (0.68, P-value =0.000), which confirm (H_{d6}), (H_{d7}), (H_{d8}), (H_{d9}), and (H_{d10}). Integrity preventive measures has significant positive indirect effects on fairness (0.21, P-value =0.000), effective strategic planning (0.15, P-value =0.000), effective performance (0.19, P-value =0.000), competitiveness (0.17, P-value =0.000), which strengthen our belief regarding (H_{d11}), (H_{d12}), (H_{d13}) and (H_{d14}). Fairness has significant positive indirect effects on effective performance (0.10, P-value =0.007) and competitiveness (0.08, P-value =0.000), which intensify our expectation regarding the validity of (H_{d15}), (H_{d16}), respectively. Finally, effective strategic planning has positive indirect effect on competitiveness (0.11, P-value =0.008). To reiterate, we have noticed that accountability has the most effective influence on other endogenous and outcome variables. This findings signify the necessity of enforcement of laws and regulations in this culture to hold people responsible for their actions. Such steps delimit and dilute the strong influence of corruption in day to day business.

e) Total Effects Of Exogenous Variables on Endogenous and Outcome Variables

To sum it up, overall effects (direct and Indirect) of procedural transparency on endogenous and outcome variables become obvious. Procedural transparency has negative and significant total effect on integrity against corruption (-0.15, P-value = 0.000), however, it has significant positive effects on accountability (0.13, P-value = 0.000), integrity preventive measures (0.34, P-value = 0.000), fairness (0.09, P-value = 0.001), effective strategic planning (0.19, P-value = 0.000), effective performance

(0.29, P-value = 0.000), competitiveness (0.11, P-value = 0.000). These results certify, as anticipated, our hypotheses **(H_{1e1})**,

(H_{1e2}), **(H_{1e3})**, **(H_{1e4})**, **(H_{1e5})**, **(H_{1e6})**,), respectively. Communication transparency has strong negative and significant total effects on integrity against corruption (-0.33, P-value = 0.000), and has strong positive and significant total effects on accountability (0.71, P-value =0.000), integrity preventive measures (0.43, P-value =0.000), fairness(0.71, P-value = 0.000), effective strategic planning (0.58, P-value = 0.000), effective performance (0.56, P-value =0.000), and competitiveness (0.72, P-value =0.000). These results prove our hypotheses **(H_{1e8})**,

(H_{1e9}), **(H_{1e10})**, **(H_{1e11})**, **(H_{1e12})**, **(H_{1e13})**,) respectively. Obviously, communication transparency still has strong total effects on endogenous and outcome variables more than procedural transparency does. This strengthen our justification stated previously that the lack of enthusiasm of Arabs to strictly follow guidelines and written regulations compared to communicating these regulations by meetings and talks.

f) Total Effects of Endogenous on other endogenous and Outcome Variables

As indicated in Table(9), integrity against corruption has strong negative total impact on accountability (-0.29, P-value =0.000), integrity preventive measures (-0.16, P-value =0.000), fairness (-0.25, P-value = 0.000), effective strategic planning (-0.17, P-value=0.000), effective performance (-0.23,P-value =0.000) and competitiveness (0.16, P-value=0.000), these findings lead to approve our hypotheses

(H_{1f1}), **(H_{1f2})**, **(H_{1f3})**, **(H_{1f4})**, **(H_{1f5})** , and **(H_{1f6})**, respectively. Accountability has strong positive and

significant effects on fairness (0.79, P-value = 0.000), strategic planning (0.56, P-value = 0.000), effective performance (0.64, P-value = 0.000), competitiveness (0.59, P-value = 0.000) which verify hypotheses H_{17} , H_{18} , H_{19} and H_{20} respectively. Integrity preventive measures has positive and significant total effects on accountability (0.27, P-value = 0.000), fairness (0.18, P-value = 0.000), effective strategic planning (0.19, P-value = 0.000), effective performance (0.26, P-value = 0.000), and competitiveness (0.23, P-value = 0.000) which substantiate hypotheses H_{21} , H_{22} ,

H_{23} , H_{24} ,

respectively. Fairness has strong positive and significant total effect on effective strategic planning (0.13, P-value = 0.000), effective performance (0.29, P-value = 0.000), competitiveness (0.61, P-value = 0.000), which

confirms hypotheses H_{25} , H_{26} , respectively. Effective strategic planning has strong positive and significant total effect on effective performance (0.73, P-value = 0.000), competitiveness (0.40, P-value = 0.000) which support H_{27} , and H_{28} . Finally, effective performance has strong positive and significant effect on competitiveness (0.40, P-value = 0.000) which leads to back up hypothesis H_{29} . As closing remark, accountability has the strongest impact on other endogenous and outcomes variables, strategic planning comes next, then integrity preventive measures and integrity corruption and fairness and effective performance.

Conclusion

This study reflects the importance of exogenous variables, procedural transparency and communication transparency, in a model that proposes the eradication of corruption in the society. Transparency reduces corruption as it is the general tendency of human beings to hide all his misdeeds from the society and to engross in misdeeds in the area of his official capacity where nobody will interfere. Transparency supports accountability, and create a tendency to abide regulation and it makes regulation more

accessible and secure. At the same time the dominating effect of communication transparency over procedural transparency is a very important finding that is established in this research.

In this study it is revealed that the moderating variable, accountability, has significant positive relation than other moderating variables. Accountability, the responsibility of to be answerable, inserts a pressure from outside to keep away from corruption rather than fairness which is a sense of morality that should come from one's mind and integrity against corruption in which one can apply his free will to follow it or not. Now a days there are more people in the society who lacks sense of morality so that they will involve easily in corruption and ignores the society as a whole for his own personal benefit. Actions against any violation of code of ethics or rules and regulation (accountability) is a stumbling block to people who are inclined to corruption. So organizations should focus on accountability in its regulations and policies to ensure that public money is spent economically and efficiently. Accountability shows much potential and hence its application should be widened in the society. Integrity against corruption by laying down code of ethics in organization to comply with governmental rules and regulations, which is another significant element, can also be viewed in this perspective.

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APPENDIX

Hypotheses related to direct effect

a. HYPOTHESIS A

A: Direct Effects of Exogenous Variables on Endogenous and Outcome Variables

H_{a1} : There is a significant negative effect of procedural transparency on integrity against corruption.

H_{a2} : There is a significant positive effect of procedural transparency on accountability.

H_{a3} : There is a significant positive effect of procedural transparency on integrity preventive measures.

H_{a4} : There is a significant positive effect of procedural transparency on fairness.

H_{a5} : There is a significant negative effect of procedural transparency on effective strategic planning.

H_{a6} : there is a significant positive effect of procedural transparency on integrity effective performance.

H_{a7} : There is a significant positive effect of procedural transparency on competitiveness.

H_{a8} : There is a significant negative effect of communication transparency on integrity against corruption.

H_{a9} : There is a significant negative effect of communication transparency on accountability.

H_{a10} : There is a significant positive effect of communication transparency on integrity preventive measures.

H_{a11} : There is a significant positive effect of communication transparency on fairness.

H_{a12} : There is a significant positive effect of communication transparency on effective strategic planning.

H_{a13} : There is a significant positive effect of communication transparency on effective performance

H_{a14} : There is a significant positive effect of communication transparency on competitiveness.

b. HYPOTHESIS B

B: Direct Effect of Endogenous Variables on other Endogenous and Outcome Variables

H_{b1} : There is a significant negative effect of integrity against corruption on accountability.

H_{b2} : There is a significant negative effect of Integrity against corruption on integrity prevention measures.

H_{b3} : There is a significant negative effect of integrity against corruption on fairness.

H_{b4} : There is a significant negative effect of integrity against corruption on effective strategic planning.

H_{b5} : There is a significant positive effect of integrity against corruption on effective performance.

H_{b6} : There is a significant negative effect of integrity against corruption on competitiveness.

H_{b7} : There is a significant positive effect of accountability on fairness.

H_{b8} : There is a significant positive effect of accountability on effective strategic planning.

H_{b9} : There is a significant positive effect of accountability on effective performance.

H_{b10} : There is a significant positive effect of accountability on competitiveness.

H_{b11} : There is a significant positive effect of integrity prevention measure on accountability.

H_{b12} : There is a significant positive effect of integrity prevention measure on fairness.

H_{b13} : There is a significant positive effect of integrity prevention measure on effective strategic planning.

H_{b14} : There is a significant positive effect of Integrity prevention measure on effective performance.

H_{b15} : There is a significant positive effect of integrity prevention measure on competitiveness.

H_{b16} : There is a significant positive effect of fairness on effective strategic planning.

H_{b17} : There is a significant positive effect of fairness on effective performance.

H_{b18} : There is a significant positive effect of fairness on competitiveness.

H_{b19} : There is a significant positive effect of effective strategic planning on effective performance.

H_{b20} : There is a significant positive effect of effective strategic planning on competitiveness.

H_{b21} : There is a significant positive effective performance on competitiveness.

c. HYPOTHESIS C

C: Direct Effects of Endogenous on Other Endogenous and Outcome Variables

H_{c1} : There is a significant negative effect of accountability on integrity against corruption.

H_{c2} : There is a significant positive effect of accountability on integrity preventive measures

H_{c3} : There is a significant positive effect of accountability on fairness.

H_{c4} : There is a significant positive effect of accountability on strategic planning

H_{c5} : There is a significant positive effect of accountability on effective performance.

H_{c6} : There is a significant positive effect of accountability on competitiveness

H_{c7} : There is a significant positive effect of fairness on strategic planning.

H_{c8} : There is a significant positive effect of fairness on effective performance.

H_{c9} : There is a significant positive effect of fairness on competitiveness.

H_{c10} : There is a significant positive effect of strategic planning on fairness.

H_{c11} : There is a significant positive effect of strategic planning on competitiveness

H_{c12} : There is a significant positive effect of strategic planning on effective performance.

Hypothesis related to indirect effect:

d. HYPOTHESIS D

D: Indirect Effect of Exogenous Variables on Endogenous and Outcome Variables

H_{d1} : There is a significant negative indirect effect of integrity against corruption on accountability.

H_{d2} : There is a significant negative indirect effect of integrity against corruption on fairness.

H_{d3} : There is a significant negative indirect effect of integrity against corruption on effective strategic planning.

H_{d4} : There is a significant negative indirect effect of integrity against corruption on effective performance.

H_{d5} : There is a significant negative indirect effect of integrity against corruption on competitiveness.

H_{d6} : There is a significant negative indirect effect of accountability on effective strategic planning.

H_{d7} : There is a significant positive indirect effect of accountability on effective performance.

H_{d8} : There is a significant positive indirect effect of accountability on competitiveness.

H_{d9} : There is a significant positive indirect effect of integrity prevention measures on fairness.

H_{d10} : There is a significant positive indirect effect of integrity prevention measures on effective strategic planning.

H_{d11} : There is a significant positive indirect effect of integrity preventive measures on effective performance.

H_{d12} : There is a significant positive indirect effect of integrity preventive measures on competitiveness.

H_{d13} : There is a significant positive indirect effect of fairness on effective performance.

H_{d14} : There is a significant positive indirect effect of fairness on competitiveness.

H_{d15} : There is a significant positive indirect effect of effective performance on competitiveness..

e. HYPOTHESIS E**E: Indirect Effect of Exogenous Variables on Outcome Variables**

H_{e1} : There is a significant negative indirect effect of procedural transparency on integrity against corruption.

H_{e2} : There is a significant positive indirect effect of procedural transparency on accountability.

H_{e3} : There is a significant positive indirect effect of Procedural transparency on integrity prevention measures.

H_{e4} : There is a significant positive indirect effect of procedural transparency on fairness.

H_{e5} : There is a significant positive indirect effect of procedural transparency on effective strategic planning.

H_{e6} : There is a significant positive indirect effect of procedural transparency on effective performance.

H_{e7} : There is a significant positive indirect effect of procedural transparency on competitiveness.

H_{e8} : There is a significant negative indirect effect of communication on integrity against corruption.

H_{e9} : There is a significant positive indirect effect communication transparency on accountability.

H_{e10} : There is a significant positive indirect effect of communication transparency on integrity prevention measure.

H_{e11} : There is a significant positive indirect effect communication transparency on fairness.

H_{e12} : There is a significant positive indirect effect of communication transparency on effective strategic planning.

H_{e13} : There is a significant positive indirect effect of communication transparency on effective performance.

H_{e14} : There is a significant positive indirect effect of communication transparency on competitiveness.

f. HYPOTHESIS F**F: Total Effect of Endogenous Variables on Outcome Variables**

H_{f1} : There is significant negative total effect of integrity against corruption on accountability.

H_{f2} : There is a significant negative total effect of integrity against corruption on integrity prevention measures.

H_{f3} : There is a significant negative total effect of integrity against corruption on fairness.

H_{f4} : There is a significant negative total effect of integrity against corruption on effective strategic planning.

H_{f5} : There is a significant negative total effect of integrity against corruption on effective performance.

H_{f6} : There is a significant negative total effect of integrity against corruption on competitiveness.

H_{f7} : There is a significant positive total effect of accountability on fairness.

H_{f8} : There is a significant positive total effect of accountability on effective strategic planning.

H_{f9} : There is a significant positive total effect of accountability on effective performance.

H_{f10} : There is a significant positive total effect of accountability on competitiveness.

H_{f11} : There is significant positive total effect of integrity preventive measures on accountability.

H_{f12} : There is a significant positive total effect of integrity preventive measures on fairness.

H_{f13} : There is a significant positive total effect of integrity against corruption on effective strategic planning.

H_{f14} : There is a significant positive total effect of integrity preventive measures on effective performance.

H_{f15} : There is a significant positive total effect of fairness on effective strategic planning.

H_{f16} : There is a significant positive total effect of fairness on effective performance.

H_{f17} : There is a significant positive total effect of fairness on competitiveness.

H_{f18} : There is a significant positive total effect of effective strategic planning on effective performance.

H_{f19} : There is a significant positive total effect of effective strategic planning on competitiveness.

H_{12a} There is a significant positive total effect of effective performance on competitiveness

APPENDIX -TABLES

Table(1) Exploratory Factors, Reliability and Explained Variance

Surrogated Constructs	Explained Variance	Factor Loadings	Cronbach's Reliability Coefficient
Transparency			
1- Procedural Transparency			
Clear objectives to staff	63.51%	.659	71.2%
Documentation of Procedures		.861	
Implementation of procedures manual		.855	
2- Communication Transparency			
Introducing employees to their rights & duties	56.86%	.707	80.9%
Communication with higher authority		.818	
Employees involvement with new ideas		.761	
Easy contact with officials		.772	
Open meetings with top management		.706	
Accountability of the Organization			
3- Accountability			
complies with rules & regulations	62.41%	.800	84.9%
Applies recruitment & promotion rules.		.808	
Applies internal control system		.753	
Applies standards in appointing officials		.814	
Considers or solves staff complaints		.774	
Integrity Against Corruption in the Organization			
4- Integrity against Corruption			
Use of public resources for personal benefits	67.16%	.811	75.2%
Employees involvement in financial corruption.		.872	
Employees involvement in administrative corruption.		.772	
Organization Integrity Prevention Measures			
5- Integrity – Preventive measures			
Prepares officials for posts might be exposed to corruption.	57.21%	.660	74.7%
Has professional code of ethics.		.810	
Applies code of ethics guidelines.		.847	
Encourages employees to report any corruption acts		.693	
Fairness of the Organization			
6- Fairness			
Fair in treating all employees equally.	62.52%	.845	88%
Implementing reward & penalty principle among staff.		.764	
Staff doesn't feel injustice of the organization officials.		.793	
Follows standards in choosing for supervisory positions.		.761	
Work load is fairly distributed among employees.		.791	
Admin. decisions are applied on staff with no exception.		.788	
Effectiveness Strategic Planning of the Organization			
7- Effectiveness - Strategic Planning			
Has a strategic and operational plan.	63.18%	.850	80.3%
Is committed to implement its strategic plan.		.871	
Doesn't create new structures unless within work need		.723	
Is able to create and manage changes efficiently.		.723	

Surrogated Constructs	Explained Variance	Factor Loadings	Cronbach's Reliability Coefficient
8- Effective Performance of Organization	58.80%		76.8%
Simplifies services procedures provided to public.		.738	
States a time span for achievements.		.793	
Measures achievement against the annual plan.		.811	
Is sufficient enough to monitor staff performance.		.721	
Competitiveness in the Organization			
9- Competitiveness	61.35%		89.4%
Has an effective leadership.		.747	
Employees Involvement in decision making.		.747	
Has an evaluation system to the staff performance.		.738	
Encourages modern principles and innovative ideas.		.808	
The leadership has the desire to create the positive change.		.807	
Work environment motivates the employees.		.826	
Overall satisfaction with the organization.		.803	

Table (2)

Construct Reliability and the Extracted Variance

Construct Name	Construct Composite Reliability	Variance Extracted	R^2
Integrity against corruption	80.88%	58.70%	19%
Accountability	87.68%	58.79%	69%
Integrity Prevention	80.15%	50.82%	48%
Fairness	90.42%	61.18%	83%
Strategic Planning	82.96%	55.03%	79%
Effective Performance	80.48%	50.88%	86%
Competition	91.83%	61.68%	86%
Transparency Procedure	77.78%	54.72%	-----
Transparency Communication	83.36%	50.15%	-----

Table (3)
Correlation Matrix between Exogenous and Endogenous Variables

Constructs	Integrity against corruption	Accountability	Integrity Prevention	Fairness	Strategic Planning	Effective Performance	Competition	Transparency Procedure	Transparency Communication
Integrity against corruption	1								
Accountability p-value	-0.56 (0.000)	1							
Integrity Prevention p-value	-0.42 (0.000)	0.67 (0.000)	1						
Fairness p-value	-0.52 (0.000)	0.9 (0.000)	0.6 (0.000)	1					
Effective Strategic Planning p-value	- 0.49 (0.000)	0.86 (0.000)	0.65 (0.000)	0.82 (0.000)	1				
Effective Performance p-value	-0.51 (0.000)	0.85 (0.000)	0.66 (0.000)	0.83 (0.000)	0.91 (0.000)	1			
Competitiveness p-value	-0.46 (0.000)	0.85 (0.000)	0.64 (0.000)	0.89 (0.000)	0.86 (0.000)	0.85 (0.000)	1		
Procedure Transparency p-value	-0.34 (0.000)	0.52 (0.000)	0.58 (0.000)	0.49 (0.000)	0.58 (0.000)	0.59 (0.000)	0.52 (0.000)	1	
Communication Transparency p-value	-0.42 (0.000)	0.76 (0.000)	0.62 (0.000)	0.74 (0.000)	0.76 (0.000)	0.71 (0.000)	0.77 (0.000)	0.58 (0.000)	1

Table (4)
Path Analysis of Direct Effects and Their Significance

Paths	Path Coefficient	Standard Error	t-value			
Direct Effects Of Exogenous On Endogenous Variables						
Procedural Transparency → Integrity Against Corruption	-0.15	0.04	-4.18	0.		
Procedural Transparency → Accountability	0.00	0.03	-0.13	0.		
Procedural Transparency → Integrity Prevention Measures	0.32	0.03	9.32	0.		
Procedural Transparency → Fairness	0.09	0.03	3.06	0.		
Procedural Transparency → Effective Strategic Planning	0.19	0.03	7.22	0.		
Procedural Transparency → Competitiveness	0.11	0.03	3.90	0.		
Communication Transparency → Integrity Against Corruption	-0.33	0.04	-9.07	0.		
Communication Transparency → Accountability	0.71	0.03	21.46	0.		
Communication Transparency → Integrity Prevention Measures	0.43	0.04	11.98	0.		
Communication Transparency → Fairness	0.70	0.03	22.67	0.		
Communication Transparency → Effective Strategic Planning	0.58	0.03	19.61	0.		
Communication Transparency → Effective Performance	0.56	0.03	16.16	0.		
Communication Transparency → Competitiveness	0.72	0.03	22.74	0.		

S: means the result is supporting the hypothesis at 5% level, NS: means the result is not supporting the hypothesis at 5% level

Table (5)
Direct Effect of Endogenous on Other Endogenous and Outcome Variables

Paths	Path Coefficient	Standard Error	t-value	P-value	Supporting Or Not Supporting	Hypothesis
Integrity Against Corruption → <i>Accountability</i>	-0.25	0.02	-10.32	0.000	S	<i>H_{b1}</i>
Integrity Against Corruption → <i>Integrity Prevention Measures</i>	-0.16	0.03	-5.91	0.000	S	<i>H_{b2}</i>
Integrity Against Corruption → <i>Fairness</i>	-0.03	0.02	-1.3	0.097	NS	<i>H_{b3}</i>
Integrity Against Corruption → <i>Effective Strategic Planning</i>	0.01	0.03	0.33	0.371	NS	<i>H_{b4}</i>
Integrity Against Corruption → <i>Effective Performance</i>	-0.02	0.03	-1.16	0.123	NS	<i>H_{b5}</i>
Integrity Against Corruption → <i>Competitiveness</i>	0.05	0.02	2.5	0.006	S	<i>H_{b6}</i>
<i>Accountability</i> → <i>Fairness</i>	0.79	0.04	20.06	0.000	S	<i>H_{b7}</i>
<i>Accountability</i> → <i>Strategic Planning</i>	0.46	0.06	7.57	0.000	S	<i>H_{b8}</i>
<i>Accountability</i> → <i>Effective Performance</i>	0.08	0.07	1.02	0.154	NS	<i>H_{b9}</i>
<i>Accountability</i> → <i>Competitiveness</i>	-0.09	0.06	-1.48	0.069	NS	<i>H_{b10}</i>
<i>Integrity Prevention Measures</i> → <i>Accountability</i>	0.27	0.03	8.58	0.000	S	<i>H_{b11}</i>
<i>Integrity Prevention Measures</i> → <i>Fairness</i>	-0.04	0.03	-1.4	0.081	NS	<i>H_{b12}</i>
<i>Integrity Prevention Measures</i> → <i>Effective Strategic Planning</i>	0.05	0.03	1.7	0.045	S	<i>H_{b13}</i>
<i>Integrity Prevention Measures</i> → <i>Effective Performance</i>	0.06	0.03	2.16	0.015	S	<i>H_{b14}</i>
<i>Integrity Prevention Measures</i> → <i>Competitiveness</i>	0.06	0.02	2.56	0.005	S	<i>H_{b15}</i>
<i>Fairness</i> → <i>Effectiveness Strategic Planning</i>	0.13	0.05	2.49	0.006	S	<i>H_{b16}</i>
<i>Fairness</i> → <i>Effectiveness Performance</i>	0.20	0.06	3.38	0.000	S	<i>H_{b17}</i>
<i>Fairness</i> → <i>Competitiveness</i>	0.53	0.05	10.87	0.000	S	<i>H_{b18}</i>
<i>Effective Strategic Planning</i> → <i>Effective Performance</i>	0.73	0.07	11.03	0.000	S	<i>H_{b19}</i>
<i>Effective Strategic Planning</i> → <i>Competitiveness</i>	0.29	0.07	3.94	0.000	S	<i>H_{b20}</i>
<i>Effective Performance</i> → <i>Competitiveness</i>	0.15	0.06	2.40	0.008	S	<i>H_{b21}</i>

S: means the result is supporting the hypothesis at 5% level, NS: means the result is not supporting the hypothesis at 5% level

Table (6)
The Indirect Effects of Exogenous Variables on Endogenous and Outcome Variables

Paths	Path Coefficient	Standard Error	t-value	P-value	Supporting Or Not Supporting	Hypothesis
Indirect Effects Of Exogenous Variables On Endogenous and Outcome Variables						
Procedural Transparency → <i>Accountability</i>	0.13	0.02	7.40	0.000	S	<i>H_{c1}</i>
Procedural Transparency → <i>Integrity Prevention Measures</i>	0.03	0.01	3.49	0.000	S	<i>H_{c2}</i>
Procedural Transparency → <i>Fairness</i>	0.09	0.02	3.76	0.000	S	<i>H_{c3}</i>
Procedural Transparency → <i>Effective Strategic Planning</i>	0.08	0.02	4.56	0.000	S	<i>H_{c4}</i>
Procedural Transparency → <i>Effective Performance</i>	0.19	0.03	6.95	0.000	S	<i>H_{c5}</i>
Procedural Transparency → <i>Competitiveness</i>	0.15	0.02	6.07	0.000	S	<i>H_{c6}</i>
Communication Transparency → <i>Accountability</i>	0.20	0.02	10.80	0.000	S	<i>H_{c7}</i>
Communication Transparency → <i>Fairness</i>	0.55	0.03	17.29	0.000	S	<i>H_{c9}</i>
Communication Transparency → <i>Effective Strategic Planning</i>	0.43	0.03	15.56	0.000	S	<i>H_{c10}</i>
Communication Transparency → <i>Effective Performance</i>	0.65	0.04	16.10	0.000	S	<i>H_{c11}</i>
Communication Transparency → <i>Competitiveness</i>	0.58	0.03	18.09	0.000	S	<i>H_{c12}</i>

S: means the result is supporting the hypothesis at 5% level, NS: means the result is not supporting the hypothesis at 5% level

Table(7)
Indirect Effect of Endogenous Variables On Other Endogenous and Outcome Variables

Paths	Path Coefficient	Standard Error	t-value	P-value	Supporting Or Not Supporting	Hypothesis
Integrity Against Corruption → Accountability	-0.04	0.01	-5.09	0.000	S	H _{d1}
Integrity Against Corruption → Fairness	-0.22	0.02	-10.53	0.000	S	H _{d2}
Integrity Against Corruption → Effective Strategic Planning	-0.17	0.02	-10.25	0.000	S	H _{d3}
Integrity Against Corruption → Effective Performance	-0.20	0.02	-8.67	0.000	S	H _{d4}
Integrity Against Corruption → Competitiveness	-0.20	0.02	-9.80	0.000	S	H _{d5}
Accountability → Strategic Planning	0.10	0.04	2.52	0.006	S	H _{d6}
Accountability → Effective Performance	0.56	0.07	8.50	0.000	S	H _{d7}
Accountability → Competitiveness	0.68	0.06	11.98	0.000	S	H _{d8}
Integrity Prevention Measures → Effective Strategic Planning	0.15	0.02	7.36	0.000	S	H _{d10}
Integrity Prevention Measures → Effective Performance	0.19	0.03	6.88	0.000	S	H _{d11}
Integrity Prevention Measures → Competitiveness	0.17	0.02	6.68	0.000	S	H _{d12}
Fairness → Effectiveness Performance	0.10	0.04	2.47	0.007	S	H _{d13}
Fairness → Competitiveness	0.08	0.02	3.62	0.000	S	H _{d14}
Effective Strategic Planning → Competitiveness	0.11	0.05	2.42	0.008	S	H _{d15}

S: means the result is supporting the hypothesis at 5% level, NS: means the result is not supporting the hypothesis at 5% level

Table(8)
Total Effects of Exogenous on Endogenous Variables

Paths	Path Coefficient	Standard Errors	t-Value	P-value	Supporting Or Not Supporting	Hypothesis
Total Effects of Exogenous On Endogenous and Outcome Variables						
Procedural Transparency → Integrity Against Corruption	-0.15	0.04	-4.18	0.000	S	H_{e1}
Procedural Transparency → Accountability	0.13	0.03	4.37	0.000	S	H_{e2}
Procedural Transparency → Integrity Prevention Measures	0.34	0.03	9.88	0.000	S	H_{e3}
Procedural Transparency → Effective Strategic Planning	0.19	0.03	7.22	0.000	S	H_{e5}
Procedural Transparency → Effective Performance	0.27	0.03	8.36	0.000	S	H_{e6}
Procedural Transparency → Competitiveness	0.11	0.03	3.90	0.000	S	H_{e7}
Communication Transparency → Integrity Against Corruption	-0.33	0.04	-9.07	0.000	S	H_{e8}
Communication Transparency → Accountability	0.71	0.03	21.46	0.000	S	H_{e9}
Communication Transparency → Integrity Prevention measures	0.43	0.04	11.98	0.000	S	H_{e10}
Communication Transparency → Fairness	0.70	0.03	22.62	0.000	S	H_{e11}
Communication Transparency	0.58	0.03	19.61	0.000	S	H_{e12}
Communication Transparency → Effective Performance	0.56	0.03	16.16	0.000	S	H_{e13}
Communication Transparency → Competitiveness	0.72	0.03	22.74	0.000	S	H_{e14}

S: means the result is supporting the hypothesis at 5% level, NS: means the result is not supporting the hypothesis at 5% level

Table(9) Total Effects of Endogenous on Other Endogenous Variables

Paths	Path Coefficient	Standard Errors	t-Value	P-value	Supporting Or Not Supporting	Hypothesis
Total Effect of Endogenous Variables On Endogenous and Outcome Variables						
Integrity Against Corruption → <i>Accountability</i>	-0.29	0.02	-11.72	0.000	S	<i>H_{f1}</i>
Integrity Against Corruption → <i>Integrity Prevention Measures</i>	-0.16	0.03	-5.91	0.000	S	<i>H_{f2}</i>
Integrity Against Corruption → <i>Fairness</i>	-0.25	0.02	-10.51	0.000	S	<i>H_{f3}</i>
Integrity Against Corruption → <i>Effective Strategic Planning</i>	-0.17	0.02	-7.46	0.000	S	<i>H_{f4}</i>
Integrity Against Corruption → <i>Effective Performance</i>	-0.23	0.03	-8.59	0.000	S	<i>H_{f5}</i>
Integrity Against Corruption → <i>Competitiveness</i>	-0.16	0.02	-6.84	0.000	S	<i>H_{f6}</i>
<i>Accountability</i> → <i>Fairness</i>	0.79	0.04	20.06	0.000	S	<i>H_{f7}</i>
Accountability → <i>Strategic Planning</i>	0.56	0.04	14.71	0.000	S	<i>H_{f8}</i>
<i>Accountability</i> → <i>Competitiveness</i>	0.59	0.04	15.51	0.000	S	<i>H_{f10}</i>
<i>Integrity Prevention Measures</i> → <i>Accountability</i>	0.27	0.03	8.58	0.000	S	<i>H_{f11}</i>
<i>Integrity Prevention Measures</i> → <i>Fairness</i>	0.18	0.03	5.79	0.000	S	<i>H_{f12}</i>
<i>Integrity Prevention Measures</i> → <i>Effective Performance</i>	0.26	0.03	7.46	0.000	S	<i>H_{f14}</i>
<i>Integrity Prevention Measures</i> → <i>Competitiveness</i>	0.23	0.03	7.51	0.000	S	<i>H_{f15}</i>
<i>Fairness</i> → <i>Effectiveness Strategic Planning</i>	0.13	0.05	2.49	0.006	S	<i>H_{f16}</i>
<i>Fairness</i> → <i>Effectiveness Performance</i>	0.29	0.06	4.75	0.000	S	<i>H_{f17}</i>
<i>Fairness</i> → <i>Competitiveness</i>	0.61	0.05	12.32	0.000	S	<i>H_{f18}</i>
<i>Effective Strategic Planning</i> → <i>Effective Performance</i>	0.73	0.07	11.03	0.000	S	<i>H_{f19}</i>
<i>Effective Strategic Planning</i> → <i>Competitiveness</i>	0.40	0.05	8.30	0.000	S	<i>H_{f20}</i>
<i>Effective Performance</i> → <i>Competitiveness</i>	0.15	0.06	2.40	0.008	S	<i>H_{f21}</i>

FIGURE-1

FITTED SEM MODEL WITH ESTIMATED PATH COEFFICIENTS

