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A Canonical Model of Organizational Performance and its Determinants; a Case of Local Contractors in Kenya

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***Abstract*—** Local contractors in Kenya have been reported to have a myriad of weaknesses including operational inefficiencies, poor growth, reduced profitability, poor technology, ineffective strategies, and weak management structures among many others. This is a clear demonstration of poor organizational performance. A number of factors have been reported to influence the level of organizational performance among contractors. This paper seeks to establish the relationship between the dimensions and determinants of organizational performance for local contractors in Kenya. A canonical correlation analysis (CCA) of the criterion (dimensions) and the predictor (determinants) variables is presented herein. The results of CCA showed a significant relationship between the dimensions and determinants of organizational performance. The model was statistically significant, with a Wilks's lambda, λ, of .05197, $F(100, 1551.20) = 7.93263$, $p<0.001$. Significance across all the multivariate tests was an indication of good overall model fit. Though the study yielded ten canonical functions, only four were found to be significant. However, since the redundancy index values for the second, third and fourth roots were very low (1.6%, 1.1% and 0.5%), these canonical functions were excluded from final interpretation of the results. The total shared variance between the variates in the adopted canonical model was found to be 86.87%. The model was validated using a second set of data with the results similarly demonstrating a statistically significant relationship. The three determinants found to have the highest influence on organizational performance were found to be quality of service, firm's organizational structure and strategic planning practices. Due to the strong positive relationship established between the dimensions and determinants of organizational performance, the study recommended that local contractors strive to enhance their organizational performance by improving the environment in which they operate.

***Keywords*—** canonical correlation analysis, determinants, dimensions, local contractors, organizational performance.

I. INTRODUCTION

THE main goals of most organizations include effectiveness, efficiency, and growth. Contractors are no exception. Due to the highly competitive nature of the construction industry, those who do not live up to these goals are destined to fail. Increased competition in recent years has been fuelled by globalization. International contractors are able to enter local markets with ease. While there may be a debate as to whether the entry of foreign contractors in developing countries has a net positive impact to local economies, based on international trade regulations, these contractors cannot be barred from doing business in developing countries. There is also no doubt that buying from local organizations promotes their growth and stability. Indeed, Larcher [1] observes that local contractors hold the greatest potential for overall economic development since they minimize the outflow of financial resources from the country. However, consumers cannot just be compelled to procure local products in the midst of cheaper and better quality foreign products. Studies have also proven that protection of local businesses ends up hurting them and the economy in the long run [2]. It is for these reasons that local contractors have no option but to improve their effectiveness and efficiency if they are to compete favourably with their foreign counterparts. This research seeks to provide information which can be used to improve the organizational performance of local contractors and give them a competitive advantage over the foreign contractors. This can result in a scenario where clients who demand quality at competitive prices do not automatically prefer foreign contractors. Local contractors in Kenya have been reported to have a myriad of weaknesses including external and internal inefficiencies, poor growth, reduced profitability, poor technology, ineffective strategies, and weak management structures among many others [3], [4]. This is a clear demonstration of poor organizational performance. This study seeks to establish the relationship between local contractors' organizational performance and its determinants and recommend ways in which such performance can be enhanced.

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II. LITERATURE REVIEW

The concept of performance has its origins from the world of sports and is currently incorporated in virtually all economic sectors and other aspects of life. Performance in general is concerned with the relationship between the desired objective and the achieved result. Kaplan and Norton [5] described performance as a set of financial and non-financial indicators which define the extent to which objectives and results have been achieved. Didier [6] defines performance as the achievement of given goals in the convergence of a firm's orientation. He argues that performance is not just about achieving an outcome, but rather a positive outcome matching set objectives. The organizational performance of any system has been described as a complex relationship which involves seven critical performance criteria: efficiency, effectiveness, productivity, quality, quality of work, profitability and innovation [7]. Grigore, Badea and Radu [8] also agree that effectiveness and productivity are both ingredients of organizational performance. Organizational performance of a firm is so important that it determines its potential success [9]

A. Dimensions of Organizational Performance

Organizational performance is a multidimensional concept. Indicators of organizational performance can be categorized either as financial or non-financial. Any performance enhancement measures biased towards either category are not likely to yield maximum results. This is because most dimensions of organizational performance are positively related [10]. Therefore it is important to identify the correct measures for evaluating organizational performance. Combs, Crook and Shook [11] pointed out that although very relevant, research into organizational performance suffers from a number of deficiencies including selection of indicators based on convenience, lack of consensus and little consideration of its multidimensionality.

The following dimensions of organizational performance were identified from various researches; profitability, financial stability, business efficiency, growth, employee satisfaction, client satisfaction, technical capability, managerial capability, quality of products and safety performance [12-22]. These dimensions incorporate both financial and non-financial aspects of performance.

B. Determinants of Organizational Performance

The organizational performance of a firm is dependent on a number of factors existing both internally and externally. For example, a conducive economic environment provided by the government is bound to affect organizational performance positively. The following determinants of organizational performance were also identified from various studies; performance measurement practices, strategic planning practices, employee performance, organizational structure, client support, government support, innovativeness, supplier effectiveness, quality of service, and competition [9], [20], [23-31]. These factors incorporate both the internal and external environments within which the contractor exists.

C. Research Gap

Most research done on performance in the construction industry is in most cases targeted towards improving the success of projects rather than the entities executing the projects [32-40]. While it may be important to seek improvement at project level, it is of more significance to address the issue at organizational level since such improvement has the likelihood of translating into improved project performance as well.

Where research has been carried out with regard to organizational performance, it has been outside the construction industry. This is the case in Khatun et al.~~,~~ [28]. Such research cannot be relied upon in an effort towards improving the performance of contractors since the construction industry is unique. Construction projects are temporary endeavors each with unique working conditions and challenges.

Carton [41] did some extensive research on how to measure organizational performance. First, while the study developed a measurement model which captures wider information regarding the impacts of organizational actions, they failed to establish relationships existing between organizational actions and outcomes. Secondly, while the researcher sought to describe the nature of organizational performance, he failed to examine the determinants of organizational determinants. Thirdly, the focus of the research was only on the financial aspect of organizational performance, making it unidimensional. Fourth, not only was the research not conducted in the context of the construction industry, it was conducted in U.S.A, a developed country.

III. METHODOLOGY

A quantitative research strategy and a survey research design was adopted. The target population comprised of local contractors and consultants. The number of local contractors targeted was 1,427. Their sample size was estimated at 306. An equal number of consultants was adopted with their inclusion being dependent on their involvement in projects handled by the sampled contractors. The overall response rate was 62%. Data was collected by use of questionnaires.

The studied dimensions of organizational performance (OP) comprised of; technical capability (TC), growth (GR), client satisfaction (CS), financial stability (FS), managerial capability (MC), quality of products (QP), profitability (PR), employee satisfaction (ES), business efficiency (BE), and safety performance (SP). The determinants of organizational performance (DT) studied included; employee performance (EP), clients' effectiveness (CE), contractor's strategic planning practices (ST), quality of service (QS), contractor's innovativeness (CI), organizational structure of the firm (OS), competition (CN), performance measurement practices (PM), suppliers' effectiveness (SE), and government support (GS). These variables were measured subjectively using a 10-point rating scale. This study hypothesizes that there is a statistically significant relationship between the dimensions and determinants of organizational performance. The following statistical assumptions were complied with; linearity, normality, homogeneity, and absence of multicollinearity.

Canonical correlation analysis (CCA), a statistical method for exploring the relationship between two multivariate sets of variables, was used to explore the linkage between the dimensions and determinants of organizational performance. Fedelis and Anthonia [42] referred to CCA as a multivariate analysis of correlation which summarizes the number of variables while preserving the structural characteristics of the relationships. This enables easier interpretation of various analyses on the data sets by reducing the number of scatter plots. CCA is not concerned with prediction or explanation of

one set of variables using another, but rather measures the association between two sets of variables [43]. Fig. 1 shows the predicted canonical relationship between the two sets of variables, organizational performance and its determinants.

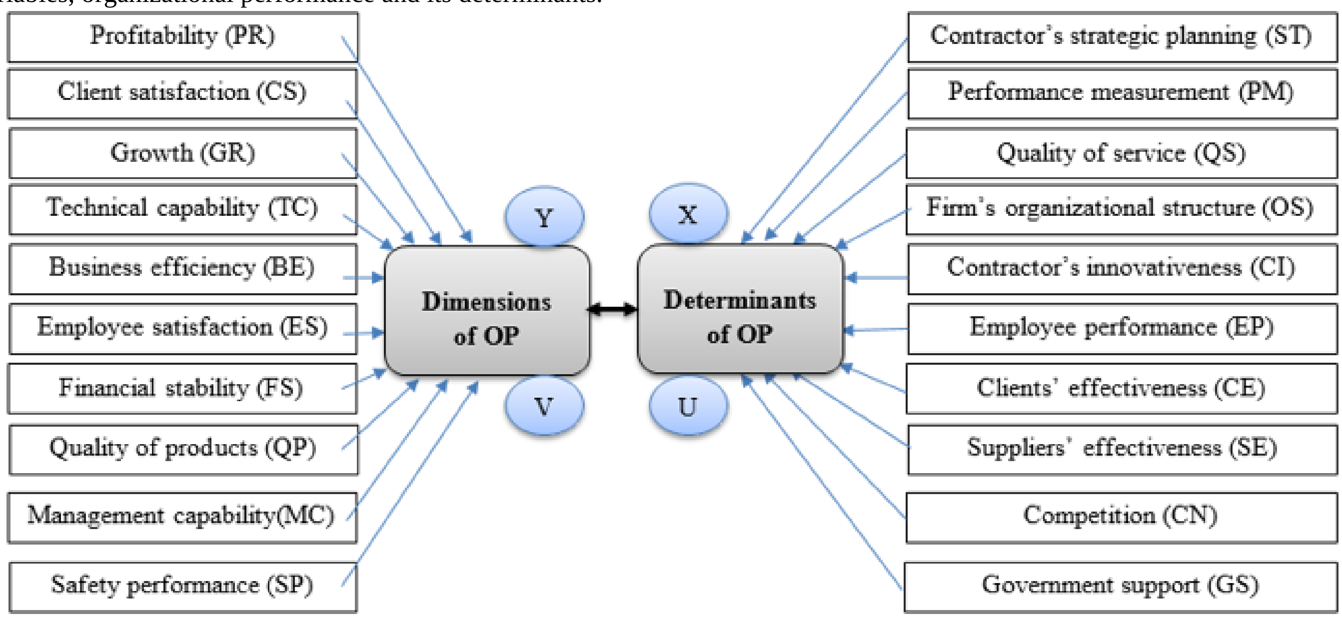

Fig. 1: Hypothesized Canonical Relationship between Dimensions of Organizational Performance and their Determinants

A Canonical Correlation Analysis (CCA) was executed using syntax commands in IBM® SPSS® Statistics v21. The dimensions of organizational performance were treated as criterion variables while the determinants of organizational performance were treated as the predictor variables. Since there were 10 dimensions versus 10 determinants in the CCA, it meant that the analysis would yield 10 canonical correlation models. Other than testing the overall model fit of the full canonical model, the following criteria was used to interpret the results; canonical correlation coefficient (Rc), squared canonical correlation coefficient (Rc^2), canonical coefficients (canonical weights), canonical loadings (canonical structure correlations), canonical cross-loadings and redundancy index based on recommendations by Hair Jr et al. [44]. The data was split into two sets (calibration and validation samples) and analysis carried out on both samples separately. This was for the purposes of statistical validation based on the advice given by [45].

IV. FINDINGS AND DISCUSSION

A. *Results for the Calibration sample*

Multivariate tests of significance results presented in Table 1 indicate that there is a statistically significant correlation between the two sets of variables. The full model was statistically significant, with a Wilks's lambda, λ, of .05197, F (100, 1551.20) = 7.93263, p<0.001. Significance across all the multivariate tests is an indication of good overall model fit. A Wilks λ value of 0.05197 meant that the full canonical model explained approximately 94.803% of the variance shared between the dimensions and determinants of organizational performance. This is because the Wilks Lambda is the measure of the unexplained variance by the model [46]. This means that the overall model has a large effect size on the population.

TABLE 1
MULTIVARIATE TESTS OF SIGNIFICANCE (CALIBRATION SAMPLE)

Test Name	Value	Approx. F	Hypoth. DF	Error DF	Sig. of F
Pillai's	1.6903	4.55645	100.00	2240.0	.000
Hotelling's	7.67309	16.35902	100.00	2132.0	.000
Wilk's	.05197	7.93263	100.00	1551.2	.00
Roy's	.86867				

The root numbers in Table 2 represent the 10 pairs of canonical variates together with canonical correlation values (Rc) demonstrating the strength of relationship between the two sets of variables. The canonical correlation values are the Pearson's correlations of the pairs of canonical variates. The squared canonical correlations (Rc^2) also known as canonical roots represent the shared variance between the two sets of variables in each pair of canonical variate. All the ten yielded functions had a positive canonical correlation. Though the second and third roots had some considerable shared variance

(32.83% and 20.02%), the first root had a very high value of Rc^2 thereby indicating high amount of shared variance (86.87%). The eigenvalues are calculated using the squared canonical correlations ($Rc^2/1-Rc^2$) and their relative sizes reflect the extent to which the variance in the canonical variates is explained by the corresponding canonical correlation.

TABLE 2
EIGENVALUES AND CANONICAL CORRELATIONS (CALIBRATION SAMPLE)

Root No.	Eigenvalue	%	Cum. %	Canon Cor. (R_c)	Sq. Corr. (R_c^2)
1	6.61468	86.20621	86.20621	.93203	.86867
2	.48865	6.36840	92.57461	.57293	.32825
3	.25036	3.26280	95.83741	.44747	.20023
4	.14449	1.88306	97.72046	.35531	.12625
5	.07020	.91486	98.63532	.25611	.06559
6	.04835	.63019	99.26551	.21477	.04612
7	.02624	.34204	99.60754	.15992	.02557
8	.02113	.27534	99.88288	.14384	.02069
9	.00837	.10913	99.99201	.09112	.00830
10	.00061	.00799	100.00000	.02475	.00061

As shown in Table 3, out of the ten extracted canonical functions, only the first four were statistically significant ($p<0.05$) using the F test and therefore the interpretation of the results would be focused on these four models. Additionally, the shared variances of the excluded roots were noted to be too low (6.56%, 4.61%, 2.56%, 2.07%, 0.8% and 0.06%) as previously seen on Table 2.

TABLE 3
DIMENSION REDUCTION ANALYSIS (CALIBRATION SAMPLE)

Roots	Wilks L.	F	Hypoth. DF	Error DF	Sig. of F
1 to 10	.05197	7.93263	100.00	1551.20	.000
2 to 10	.39570	2.67544	81.00	1404.88	.000
3 to 10	.58907	1.88902	64.00	1258.12	.000
4 to 10	.73654	1.40785	49.00	1111.17	.035
5 to 10	.84296	1.06274	36.00	964.46	.371
6 to 10	.90214	.92065	25.00	818.77	.577
7 to 10	.94576	.77806	16.00	675.80	.712
8 to 10	.97058	.74125	9.00	540.44	.671
9 to 10	.99109	.50016	4.00	446.00	.736
10 to 10	.99939	.13735	1.00	224.00	.711

Figures 2, 3, 4, and 5 represent the four significant canonical models. The value at the center represents the canonical correlation between the pair of canonical variates. The inner column (A) of values represent the canonical loadings (canonical structure correlations) while the outer columns represent the canonical cross-loadings (D) and standardized canonical coefficients/canonical weights (C) of each of the variable. Canonical loadings are the correlations between variables and canonical variates; they represent the direct contribution of one variable to the variate regardless of other variables [47]. The canonical coefficients define the linear relationship between the variables and the canonical variates and are interpreted just like the regression coefficients (Prince et al., 2019). They represent the contribution of each variable to the variate given the contribution of other variables [47].

As demonstrated on Table 2, the first canonical function had a correlation coefficient of 0. 93203, an eigenvalue of 6.61468 and a shared variance (between the variates) of 86.87%. The correlation coefficient indicates a high degree of association between the two variates. Based on the standardized canonical weights, the three variables which contribute most to the criterion variate are employee satisfaction (0.34), managerial capability (0.24) and safety performance (0.18) while the three variables which have the highest effect on the predictor variate are strategic planning practices (0.35), contractors' innovativeness (0.19) and supplier effectiveness (0.19). These are the most critical dimensions and determinants based on this criteria. However, canonical weights are typically unstable and vary greatly across samples [48]. Therefore, where there are inconsistencies, canonical loadings shall prevail. All the canonical loadings in the first canonical function were considered to be high with the lowest at 0.60. The three dimensions with the highest relationship with the criterion variate were employee satisfaction (0.91), managerial capability (0.87) and growth (0.86) while the three determinants with the highest influence on the predictor variate are organizational structure of the firm (0.91), quality of service (0.89) and performance measurement practices (0.89). These results are largely consistent with those of the standardized canonical weights. The canonical loadings for this model were above the threshold of 0.3 adapted from Milanović et al. [49]

The cross-loadings were obtained by multiplying the canonical function's correlation with the individual canonical loadings for all the variables. Within the criterion variate, the dimensions with the highest cross-loadings are employee satisfaction (0.85) and managerial capability (0.81). This means that 72.25% and 65.61% of the variance in each of these respective variables were explained by the predictor variate (determinants of organizational performance). This was obtained by squaring the correlation coefficients as advised by Hair Jr et al [48]. However, it can be noted that all the cross-loadings were generally high with the lowest at 0.71. This meant that at least 50% of the variance in each of the dimensions could be explained by the study's determinants of organizational performance.

The canonical correlation values tend to be inflated and do not actually represent the shared variance in the original criterion and predictor variables [50]. It is for this reason that redundancy index values were computed. The redundancy index values on Table 4 were obtained by multiplying the average of the squared canonical loadings (in Figure 2) for each variate by the squared canonical correlation values. The redundancy index represents the amount of variance in one set of variables that can be explained by the variables in the other set [48]. It is the amount of variance overlap or redundancy between the two sets of variables. It is also worth noting that there are not set thresholds for interpreting canonical loadings and redundancy indices though the higher the values the higher the predictive ability [51].

Since the redundancy index values shown on Table 4 for the second, third and fourth roots were very low (1.6%, 1.1 % and

0.5% for the criterion variate), these canonical functions were excluded from final interpretation of the results. This is because in such models, the determinants would have a very low predictive ability of the organizational performance.

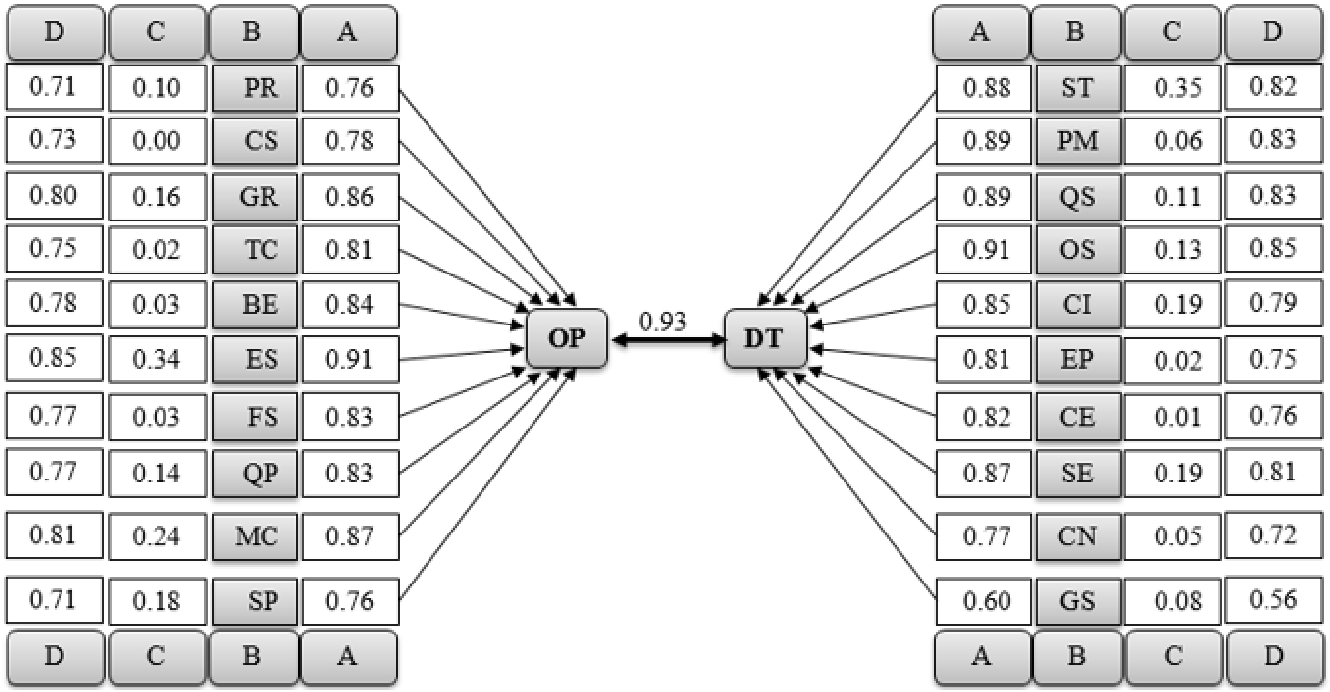

Fig. 2: Canonical Model for the First Canonical Function (calibration sample, n=235) (A=canonical loading; B=variable; C=standardized canonical weight; D= canonical cross-loading)

TABLE 4
REDUNDANCY INDEX (RI) (CALIBRATION SAMPLE)

	Criterion Variate (OP)			Predictor Variate (DT)		
Root	**Average Canonical Loading Squared**	R_c^2	**RI**	**Average Canonical Loading Squared**	R_c^2	**RI**
1	0.682	0.87	0.593	0.697	0.87	0.606
2	0.049	0.33	0.016	0.066	0.33	0.022
3	0.056	0.20	0.011	0.039	0.20	0.008
4	0.039	0.13	0.005	0.029	0.13	0.004

The redundancy index values for the first canonical function are 0.593 and 0.606. This means that 59.3% of the variance in the Y variate can be explained by the predictor variables (determinants of organizational performance) while 60.6% of the variance in the X variate can be explained by the criterion variables (dimensions of organizational performance). In this study, the researcher was more interested in the variance within the criterion variate (59.3%) which is explained by the predictor variables. The high value not only indicates a high predictive capability but also means that the studied predictor variables (determinants) are theoretically and statistically sound in explaining the dimensions of organizational performance.

Figure 3 presents the 2nd canonical function. Though there is a relatively high canonical correlation between the variates (57%), the redundancy index values shown in Table 4 were found to be too low (1.6%, 2.2%) and therefore there was no need to interpret further results about these variates. Additionally, the canonical cross-loadings were also seen to be low.

Figures 4 and 5 present the 3rd and 4th canonical functions. Not only were the canonical correlations considered to be low, but the redundancy index values presented in Table 4 were also almost negligible. The canonical cross-loadings were also observed to be very low.

A. *Validation of the Canonical Model*

Validation is an essential step towards model acceptance [52]. It assists in checking the predictive robustness of the calibration model [45]. In this study, statistical validation was achieved through sample splitting. The previous presented results were obtained from the calibration sample whereas the results discussed hereafter are for the second data set. Previously stated statistical assumptions were also checked for the validation sample.

Just like in the calibration sample, multivariate tests of significance results demonstrated a statistically significant correlation between the two sets of variables. The full model was statistically significant, with a Wilks's lambda, λ, of .03190, F (100, 892.50) = 5.51589, $p<0.001$. Significance across all the multivariate tests is an indication of good overall model fit. The full canonical model explained approximately 96.81% of the variance shared between the dimensions and determinants of organizational performance. This was even higher than the value obtained previously (94.803%). Table 5 presents the eigenvalues and canonical correlations. These two sets of results were found to be similar to those obtained earlier.

The first four functions explained approximately 95.38% (compared to 97.72%) of the shared variance by the canonical variates.

EIGENVALUES AND CANONICAL CORRELATIONS (VALIDATION SAMPLE)

Root No.	**Eigenvalue**	**%**	**Cum. %**	**Canon Cor.** (R_c)	**Sq. Corr.** (R_c^2)
1	5.78741	75.42105	75.42105	.92340	.85267
2	.83420	10.87117	86.29222	.67439	.45480
3	.45427	5.92007	92.21229	.55890	.31237
4	.24332	3.17088	95.38317	.44238	.19570
5	.20987	2.73497	98.11814	.41649	.17346
6	.07552	.98417	99.10231	.26499	.07022

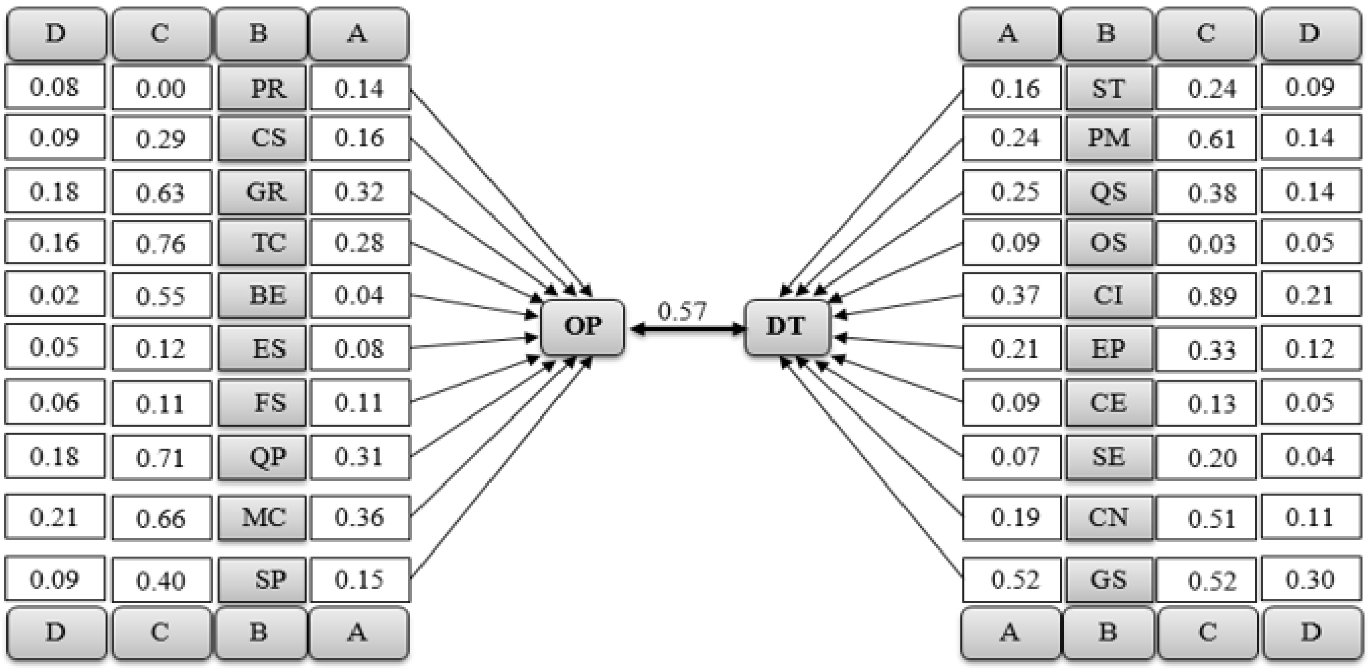

Fig. 3: Canonical Model for the 2nd Canonical Function (calibration sample, n=235) (A=canonical loading; B=variable; C=standardized canonical weight; D= canonical cross-loading)

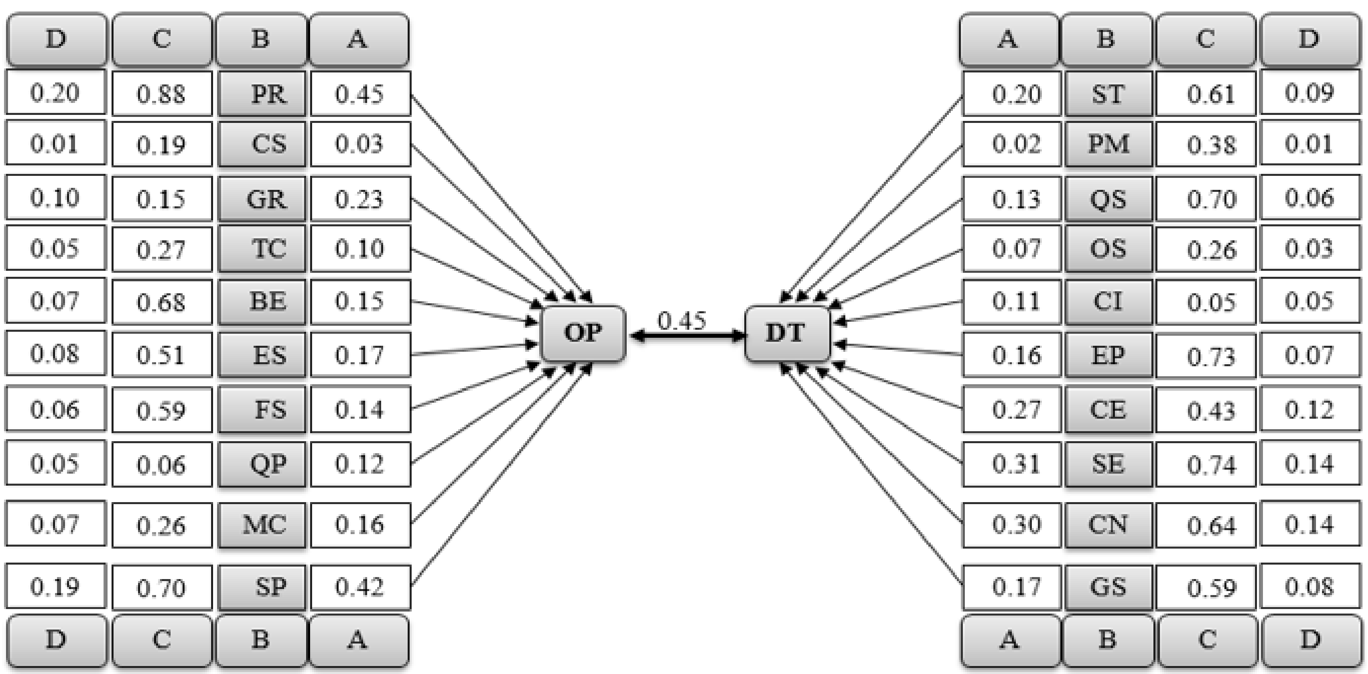

Fig. 4: Canonical Model for the 3rd Canonical Function (calibration sample, n=235) (A=canonical loading; B=variable; C=standardized canonical weight; D= canonical cross-loading)

TABLE 5

Roo t No.	Eigenva lue	%	Cum. %	Canon Cor. (R_c)	Sq. Corr. (R_c^2)
7	.03274	.42673	99.52904	.17806	.03171
8	.02231	.29077	99.81980	.14773	.02182
9	.01366	.17795	99.99776	.11607	.01347
10	.00017	.00224	100.00000	.01312	.00017

Table 6 presents the results of the significance of each of the canonical roots. The first four functions were found to be statistically significant ($p<0.05$). This meant that the remaining six functions were to be ignored in any further analysis. This was consistent with the results found in the calibration sample.

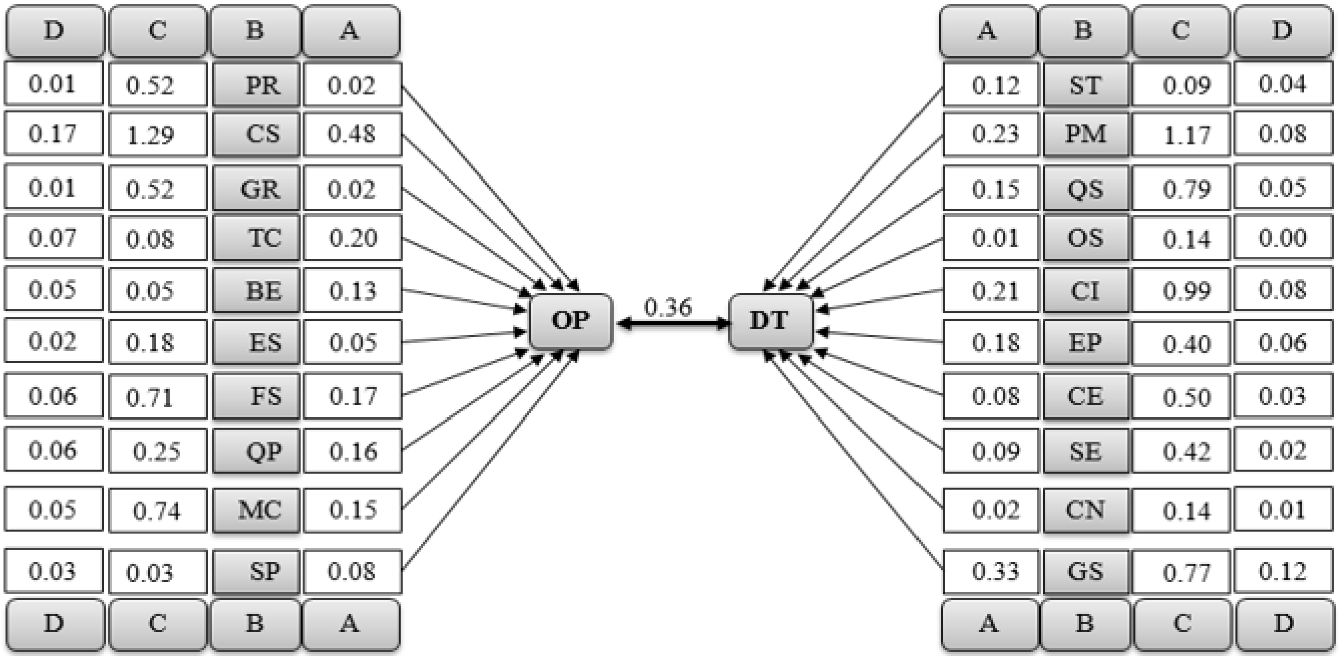

Fig. 5: Canonical Model for the 4th Canonical Function (calibration sample, n=235) (A=canonical loading; B=variable; C=standardized canonical weight; D= canonical cross-loading)

However, since the adopted canonical model for this study was

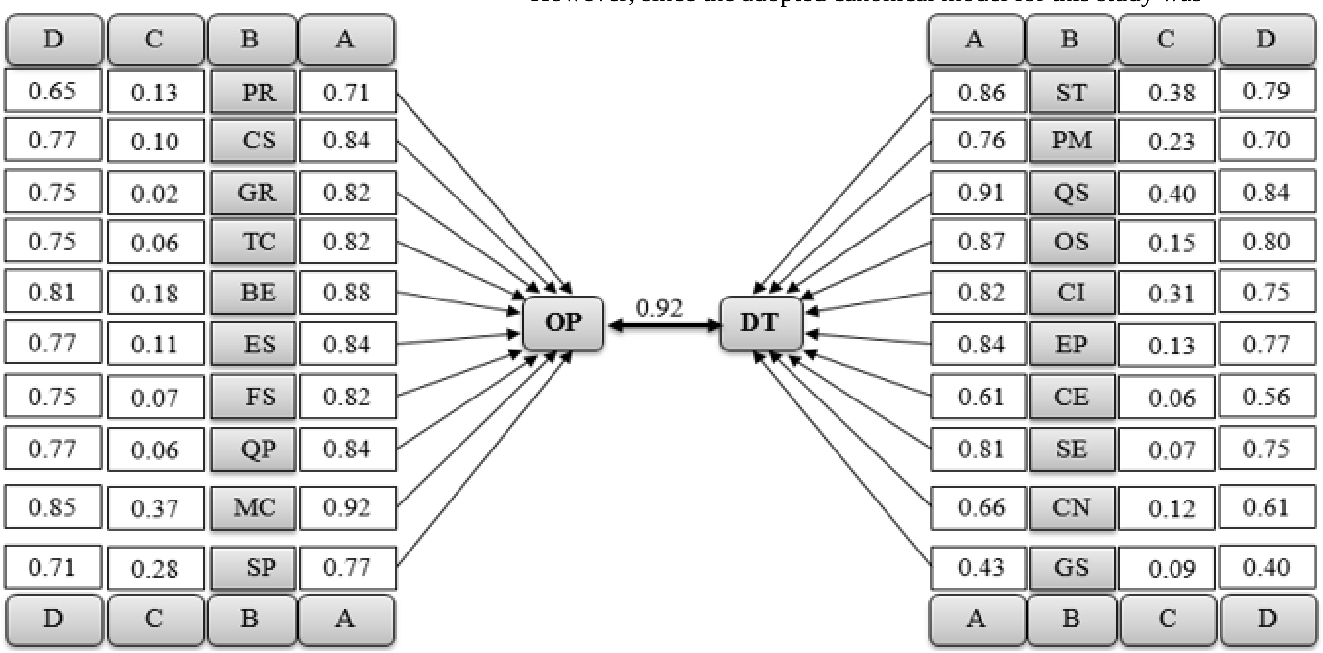

Fig. 6: Canonical Model for the First Canonical Function (validation sample, n=143) (A=canonical loading; B=variable; C=standardized canonical weight; D= canonical cross-loading)

based on the first canonical function (Figure 2), any further comparison of results was based on such.

TABLE 6
DIMENSION REDUCTION ANALYSIS (VALIDATION SAMPLE)

Roots	Wilks L.	F	Hypoth. DF	Error DF	Sig. of F
1 to 10	.03190	5.51589	100.00	892.50	.000
2 to 10	.21649	2.67275	81.00	810.32	.000
3 to 10	.39708	1.97404	64.00	727.47	.000
4 to 10	.57746	1.50152	49.00	644.10	.017
5 to 10	.71796	1.22012	36.00	560.46	.181

Roots	Wilks L.	F	Hypoth. DF	Error DF	Sig. of F
6 to 10	.86864	.73719	25.00	477.00	.820
7 to 10	.93424	.55547	16.00	394.74	.916
8 to 10	.96483	.52120	9.00	316.54	.859
9 to 10	.98636	.45137	4.00	262.00	.771
10 to 10	.99983	.02273	1.00	132.00	.880

The RI for the criterion variate in the validation sample was found to be 0.581 while that of the predictor variate was 0.506. These were almost similar with the results found in the first data set, 0.593 and 0.606 respectively. Figure 6 below presents the canonical model based on the validation data sample. As seen, the canonical weights and loadings were largely consistent with the previously established ones. This was also the case with the canonical cross-loadings.

B. Discussion

The findings of this study underscore the significant influence the determinants have on the organizational performance of local contractors in Kenya. This was demonstrated by the high canonical correlation value (0.932) and shared variance (86.87%) between the synthetic dimensions and determinants of organizational performance coupled with consistently high canonical loadings and cross-loadings across all the study variables in the adopted canonical model (Figure 2). The results demonstrated a statistically significant relationship between organizational performance and its determinants. All the canonical loadings of the dimensions of organizational performance were consistently high with the lowest at 0.76 and the highest at 0.91. This demonstrates the significant role played by each dimension including both financial and non-financial. A redundancy index of 0.593 indicated that 59.3% of the variance in organizational performance was explained by the studied determinants meaning that they were not exhaustive.

Strategic planning practices were found to have a standardized canonical weight of 0.35 implying a strong contributing influence. Previous studies have indeed associated enhanced organizational performance with effective strategic planning practices. A study by K'Obonyo and Arasa, [26] revealed a Pearson's correlation coefficient of 0.616 between strategic planning and overall organizational performance. An earlier study by Greenley [53] had also suggested that strategic planning has potential advantage and intrinsic values which lead to enhanced organizational performance.

The employee performance was found to have a significantly high canonical loading of 0.81. The performance of an organization has been known to depend on its employees since they are an integral part which works towards realization of the organization's goals [9]. The employee satisfaction and employee performance are two aspects of the organization which are highly dependent on each other. Highly satisfied employees are associated with improved productivity. As established in this study, satisfaction extends beyond monetary reward to non-financial aspects like inclusion in decision making and opportunities for professional growth. Indeed, Jones and Kato [54] demonstrated that employee involvement leads to improved firm performance through enhanced discretionary effort. Another study by Bakotić [55] established a strong relationship between job satisfaction and firm performance among Croatian companies.

This study established performance practices to have among the highest contribution to the predictor variate with a canonical loading of 0.89. This highlights its significance. Studies have suggested that integration of performance measurement systems within internal structures of an organization can improve its overall performance. The research by Koufteros et al. [56] indeed demonstrated that the adoption of performance measurement systems enhances an organization's capabilities both at individual and firm level thereby improving its performance.

The determinant of organizational performance found to have the highest influence based on its canonical loading was the organizational structure of the firm (0.91). Therefore the management structure of an organization is a key factor in determining its performance. Previous studies have had no consensus on the effect of an organizational structure's formality on its performance. Chen and Huang [57] associated informal structures with improved performance. Germain [58] on the other hand argued that formal organizational structures lead to high performance in stable environment. However, the researcher further asserted that when the environment is dynamic rather than stable, formality in an organization can be its undoing in the pursuit of success. This demonstrates the importance of flexibility of organizational structures in their quest for improved performances especially in a dynamic construction industry where technology and market trends are constantly changing. Another significant aspect of an organizational structure is its simplicity. Haid et al. [59] established that complex structures are most of the time associated with ineffectual implementation of the organization strategy therefore negatively affecting its performance. Stability, flexibility, simplicity and continuity of the management structure are therefore important contributors of an organization's success.

As demonstrated by the high standardized canonical weight in Figure 2, innovativeness is a key ingredient towards improved organizational performance due to the wide range of benefits associated with improved innovation. Varis and Littunen [60] argued that the main reason behind organizations engaging in innovativeness was to enhance their performance. Advancements in products and processes results into highly efficient and profitable firms [27]. Another study by Calantone et al. [61] established a positive relationship between innovativeness and organizational performance. A longitudinal multi-industry study the U.S.A established that improved innovation through increased product innovations and patents had a significant impact on organizational performance [62]. In another study, product and market innovation were also found to positively influence firm performance [63]. Though the discussed studies were not based on the construction industry, this study's findings were found to have similar results. It is therefore critical for local contractors to embrace innovation through adopting modern techniques of executing their operations.

V. Conclusion and Recommendations

Not only was the study hypothesis confirmed, the results obtained were supportive of the theoretically anticipated relationship between the dimensions and determinants of organizational performance. The construction industry is very dynamic. It is paramount that any local contractor on a quest to achieve enhanced organizational performance should be flexible to changing economic environment and be innovative in order to exploit the opportunities presented by the dynamics of the industry. Basic aspects such as employee satisfaction are crucial as they affect other features such as employee performance which in turn affects quality of products/works. This means that the local contractor cannot afford to focus only on certain aspects of organizational performance such as financial because all the dimensions of organizational performance are intertwined. It is only through a holistic approach that the local contractor will be able to thrive in the globalized construction industry.

Lastly, no study is without limitations. Based on the redundancy index, the variance in organizational performance which was explained by the study's determinants was 59.3%. This means that the list of determinants picked for this study was not exhaustive. This means that other determinants either exist out there or lie within the dimensions of organizational performance. Future research may therefore be undertaken; (i) to explore other determinants of organizational performance, and (ii) to establish the effects of dimensions of organizational performance on each other

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