INCENTIVE ALIGNMENT, COOPERATIVE BEHAVIOUR AND HOTEL PERFORMANCE: A SURVEY OF THE KENYAN HOSPITALITY INDUSTRY

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Abstract

The ultimate challenge is the equitable distribution of rewards and risks resulting from supply chain collaboration. In traditional practice, the method by which risk and reward are shared is the transfer price. This would work quite well in transactional relationships. Incentive alignment is a key collaborative supply chain practice. However whether incentive alignment would result in improved performance in the context of the hospitality industry has not been empirically determined. This study sought to find out the role of incentive alignment on hotel performance when the relationship was mediated by cooperative behaviour. A survey design was employed where proportionate stratified sampling was used to select 50 out of 57 town hotels. Data was collected through the use of questionnaires as well interview guides to the procurement\supply chain departments of these hotels. Logarithmic transformations were used in conjunction with multiple regression analysis to determine the relationship between incentive alignment, cooperative behaviour and hotel performance. The study concludes that incentive alignment plays a significant role in stimulating hotel performance in the Kenyan hospitality industry. Cooperative behaviour (trust and attitude) was found not to have a significant influence on hotel performance when it mediated the relationship. Therefore, incentive alignment on its own significantly improves operational performance.

Key Words: Incentive Alignment, Co-operative Behaviour, Hotel Performance, Supply Chain Collaboration, Kenyan Hospitality Industry.

Background

The hospitality industry in Kenya finds itself at a crossroads. The numbers of traditional tourists from the West have continued to dwindle following repeated travel advisories against visiting the Kenyan coast (Euromonitor, 2015). With the ever present threat of terrorism stalking the tourism industry, accompanied by debilitating travel advisories, with hotel occupancies having dropped from an average 50% in 2014 to less than 20% in 2015 (Mwakio, 2015) it is now very evident that hotels would not meet their performance objectives through revenue collection.

Collaborative supply chain practices in the Kenyan hospitality industry have long existed but rather in a less structured and formal manner. Industry players have continuously collaborated some for as long as twenty five years. The general feeling is that collaboration is something good and is laden with substantial benefits. As the business environment becomes more complex, organizations recognize that many benefits can be obtained from closer, long-term
relationships (Ganesan, 1994). Day (2000) ventures to say that committed relationships are among the most durable of advantages because of their inherent barriers to competition. Few authors, notably Abade (2011) and Barasa (2016) have attempted to explore this area within the Kenyan context.

Supply chain collaboration in most instances has a dual purpose: to improve the performance of an individual organization, and to improve the performance of the whole supply chain. In an increasingly crowded marketplace it seems to stand out as an effective competitive weapon and the answer to rapid competition. This is highlighted by Spekman, Kamauff, and Myhr (1998), Ford Motors is as successful as its ability to co-ordinate the efforts of its key suppliers (and its suppliers’ suppliers) as steel, glass, plastic, and sophisticated electronic systems are transformed into an automobile that is intended to compete in world markets against the Japanese, the Germans, and other US manufacturers.

Incentive alignment refers to the degree to which chain members share costs, risks, and benefits. The incentives of the different parties involved in the collaboration may be fundamentally misaligned, making it difficult even for enthusiastic, committed staff to make the collaboration work while still fulfilling their other targets. Darrinton and Howell (2010) state that “incentives create a circumstance where cooperation better serve their economic interest than competing with others inside the project”.

Laufer et al. (1981) research in their study financial incentives to enhance productivity by using the Delphi technique concluded that financial incentives improve the workers motivation and the management quality resulting in an overall improved performance.

In spite of the key role played by incentive alignment in collaborative supply chain relationships its role in the performance of hotels in the Kenyan hospitality industry has not been empirically determined.

This research paper aims to explore the nature of collaboration and the role of incentive alignment in the performance of hotels in the Kenyan hospitality industry when the relationship is mediated by cooperative behaviour. Specifically, this research focuses on the following research question: Does incentive alignment with mediation from cooperative behaviour improve hotel performance?

Kenyan Hospitality Industry

The hospitality economic sector is a service-giving sector, which evolved in line with the coming of transportation industry and start of trading, Kamau and Waudo (2012). It is a popular generic name for hotel and restaurant industries. According to Ottenbacher, Harrington and Parsa (2009), it includes Lodging (Hotels, Motels), Food service (Restaurants, Caterings), Leisure (Vacations, Parks, Sightseeing, and hiking), Conventions (Meetings, Trade shows), Travel (pleasure and business) and attractions (fairs, gatherings, shows). Cognizant of the rapid growth in the tourism sector and by extension, the hospitality industry worldwide and locally, the tourism and in effect the hospitality industry’s importance cannot be overemphasized having provided Kenya with an avenue to achieve economic diversification. Statistics published by the United Nations World Tourism Organization (UNWTO) are eloquent in demonstrating the significance and share of tourism in the global economy. At an average of 1.5 million tourist arrivals per year, Kenya’s global market share stands at 0.17% of the global market (Government of Kenya [GoK], 2013; United Nations World Tourism Organization [UNWTO], 2012).
According to the Kenya National Bureau of Statistics (KNBS) tourism earnings stood at 73.3 billion Kenya shillings in 2010 and in the same period the number of hotel bed nights occupied was an impressive 6,662,300 (KNBS, 2014). With these levels of revenue earnings, the industry’s importance cannot be overemphasized. Lately, the government has set attainment of 3 million tourists per year as one of its overriding targets (Jubilee Manifesto, 2012). Whereas this target was initially set to be achieved by 2012 in the Vision 2030 five-year Medium Term Plan 2008–2012, it remained elusive by the end of the period (GoK, 2013).

The significant role of the tourism sector in the economic development of many countries is well documented in tourism literature, the merits of which are essentially in terms of increased foreign exchange receipts, balance of payments, government revenues, employment, and increased economic activity in general (Valle & Yobesia, 2009). Kenya’s major tourism activities are safari and beach holidays, which are spatially restricted to key tourism destination areas including the coast (Mombasa, South Coast, and Malindi coastal areas) and around a few key national parks and reserves (Masai Mara National Reserve, Tsavo National Parks, and Amboseli National Park) (Akama, 1999; Ondicho, 2000). It is noteworthy to mention that recently, other forms of tourism such as sports, adventure, cultural, and business tourism have been promoted in an effort to diversify the destination’s product. As observed by Akama (1999) and Odunga and Folmer (2004), Kenya’s comparative advantage in the international tourism scene is based on its endowment of unique natural resources such as pristine beaches, diverse wildlife, scenic landscape, ideal weather conditions, and unique indigenous cultural heritage.

**Statement of the Problems**

Collaborative supply chain practices in the Kenyan hospitality have long existed but in a less structured and formal manner. However, their role in the performance of hotels had not been established. Abade (2011) argues that the area of collaborative supply chain practices in Kenya has not been extensively and adequately researched on. The study sought to determine the role of incentive alignment in the performance of hotels in the Kenyan hospitality industry.

**Specific Objective**

To determine the role of incentive alignment in the performance of hotels in the Kenyan hospitality industry.

**Research Question**

What is the role of incentive alignment in the performance of hotels in the Kenyan hospitality industry?

**Hypothesis**

\[ H_0: \text{Incentive Alignment in collaborative supply chain relationships does not significantly influence the performance of hotels in the Kenyan hospitality industry.} \]

\[ H_A: \text{Incentive Alignment in collaborative supply chain relationships significantly influences the performance of hotels in the Kenyan hospitality industry.} \]
Theoretical framework

Resource-based theory

This study adopts the resource based view (RBV) theory which was introduced by Wernerfelt (1984) and Barney (1991). The theory holds that organizational performance is determined by the manner in which firms deploy, manage and position their internal resources and capabilities. These resources need to be invaluable, rare and imperfectly imitable and not substitutable.

This theory anchors the study as it predicts that certain types of resources, including collaborative relationships, incentive alignment agreements between hotels in the Kenyan hospitality industry and their suppliers as well as other resources owned and controlled by firms have the potential and promise to generate competitive and eventually superior firm performance. Collaborative relations between the hotels and their suppliers are viewed as resources that can be creatively exploited to achieve premier performance. According to Ni (2006), viewing relationships as resources satisfies all four resource criteria in the resource-based view perspective, namely (Barney, 1991): value; rareness; uniqueness (inimitability); and non-

Substitutability.

Conceptual framework

The conceptual framework shows the relationship between the independent, moderating and dependent variables.

![Conceptual framework diagram](image-url)

Independent variable | Dependent Variable
--- | ---
Incentive Alignment | Cooperative Behaviour
- Trust
- Attitude towards the relationship | Performance of Hotels
- Increased profits
- Reduced ordering costs
- Better order fulfillment
- Improved quality & reliability of procured goods
- Reduced customer complaints
- Improved reputation

Fig 1: Conceptual framework
Incentive Alignment

Incentive alignment refers to the degree to which chain members share costs, risks, and benefits. The incentives of the different parties involved in the collaboration may be fundamentally misaligned, making it difficult even for enthusiastic, committed staff to make the collaboration work while still fulfilling their other targets.

Bowersox et al. (2002) notes that the ultimate challenge is the equitable distribution of rewards and risks resulting from supply chain collaboration. In traditional practice, the method by which risk and reward are shared is the transfer price. Transfer pricing, guided by market forces, works in transactional driven business relationships. However, supply chain engagements require a higher level of collaboration involving risk and reward sharing (Bowersox et al. 2002).

Narayanan and Raman (2004) in their study of more than 50 supply networks found that companies often looked out for their own interests and ignored those of their network partners. Consequently, supply chains performed poorly.

Considering that supply chains extend across several functions and many companies, each with its own priorities and goals. Yet all those functions and firms must pull in the same direction for a chain to deliver goods and services to consumers quickly and cost-effectively. For supply chains to work well, risks, costs, and rewards of doing business should be distributed fairly across the network. In fact, misaligned incentives are often the cause of excess inventory, stock-outs, incorrect forecasts, inadequate sales efforts, and even poor customer service. Players in the supply chain can only prosper if incentives are aligned.

Narayanan and Raman (2004) in their study, Aligning Incentives in the Supply Chains note that companies must acknowledge that the problem of incentive misalignment exists and then determine its root cause and align or redesign incentives. They can improve alignment by, for instance, adopting revenue-sharing contracts, using technology to track previously hidden information, or working with intermediaries to build trust among network partners. It's also important to periodically reassess incentives, because even top-performing networks find that changes in technology or business conditions alter the alignment of incentives.

These misaligned incentives arise because different players in the supply chain may see the world in very different ways. As such the collaboration might create as much value overall but the benefit could fall more to one partner than to the other. Rather than shying away from such asymmetric collaborations, organizations can make them work by agreeing on more sophisticated benefit-sharing models. These can come in the form of discounts or price increases to more fairly share increased margins or cost reductions, or they can involve compensation in other parts of the relationship.

This supply chain collaboration practice just like many others facilitates the cooperation of participating members along the supply chain to improve performance (Bowersox, 1990). The benefits of collaboration include revenue enhancements, cost reductions, and operational flexibility to cope with high demand uncertainties.

Cooperative Behaviour

Cooperative behaviour is conceptualized and measured by trust and attitude towards key suppliers. Trust is the willingness of a party to be vulnerable to the action of another party based on the expectation that the other will
perform a particular action important to the trustee irrespective of the ability to monitor or control that other party (Mayer et al., 1995).

Trust can also be defined as the extent to which supply chain partners perceive each other as credible and benevolent (Doney & Cannon, 1997). Credibility reflects the extent to which a firm believes their relationship partner has the expertise to perform effectively while benevolence occurs when a firm believes their relationship partner has intentions and motives that will benefit the relationship (Ganesan, 1994). This is supported by Moorman (1993) who defines trust as a willingness to rely on an exchange partner in whom one has confidence.

Swan and Trawick (1987), operationalized trust in five aspects of; dependable or reliable, honest or candid, competent, partner orientation, and likeable/friendly while Sako (1992) operationalizes it in three dimensions of; contractual trust, based on the belief that the other party will fulfill its promises and act as agreed; competence trust, based on the belief that the other party will be capable of doing what it has promised; and trust in goodwill, based on the shared belief of both parties that the other is deeply compromised to promoting a good development of the relationship and is willing to do more than could be expected according to the contractual terms without expecting anything in exchange.

At the beginning of the new millennium, scholars continue to stress the importance of trust in developing and managing business dyads (McCole, 2002; Svensson, 2001). The importance of trust can be explained by the fact that it is seen as a phenomenon which contributes to the strength of inter-personal relationships, intra-organizational relationships and inter-organisational relationships in business dyads (e.g. Grönroos, 2000; Håkansson and Snehota, 1995; Morgan and Hunt, 1994).

The impact of management support is established in Drucker’s framework of the theory of business (Drucker, 1969, 1994); support can be reflected in the attitude and behavior of organizational members. Siguaw et al. (1998) referred cooperative behaviour as cooperative norms, which are defined as the perception of the joint efforts of all parties to achieve mutual goals while refraining from opportunistic actions. When cooperation is the norm, a cooperative attitude is said to exist within the organization. Such a cooperative attitude helps to ensure that multiple components are focused on the same, or very similar, process outcomes.

Traits such as coordination, collaboration, commitment, communication, trust, flexibility, and dependence, are widely considered to be central to meaningful relationships.

Performance is defined as the accomplishment of a given task measured against preset known standards of accuracy, completeness, cost, and speed. For the purpose of this research study, performance will be conceptualized along the dimensions of reduced ordering costs, improved quality and reliability, increased profits, reduced customer complaints, flexibility and delivery as well as an improved organizational reputation. They coincide with the four distinct operational performance dimensions (De Toni & Tonchia, 2001). Performance indicators are a tool for organizational learning, communication, strategic change, and improvement, all in the context of existing management processes. Critical assessment of performance helps to maximize the return to all who invest in them.
Measurement of performance

Incentive alignment was operationalized as the degree to which the chain members share costs, benefits, and risks of collaboration. Hotel performance criteria was operationalized as the degree to which the chain members achieve better order fulfillment, improved quality, customer satisfaction, and responsiveness among others as a result of collaboration.

Research methods

A survey design was employed to determine the role of incentive alignment on hotel performance. A sample group was selected from the special Gazette notices number 3976 of 13th June, 2003 and Gazette Notice Number. 5693 of 23rd July, 2004 on the classifications of hotels and restaurants. Sample size determination was through Yamane (1967), who provided a simplified formula to calculate sample sizes. This formula was used to calculate the sample size. The formula is shown below.

\[ n = \frac{N}{1 + Ne^2} \]

Where \( n \) = sample size  
\( N \) = size of population  
\( e \) = error of five percentage points

When the formula is applied, the sample size is shown below.

\[ n = \frac{57}{1 + 57 (0.05)^2} \]

\[ n = 49.89059 \]

This formula resulted in a sample of 50 town hotels both globally and locally managed (or franchised). The respondents included largely procurement managers, deputy procurement managers, operations managers and storekeepers, of whom 22 were male and 11 female representing 67% and 33% respectively. The participants were highly educated with 90% having a university degree or having attained middle college education. Due to population heterogeneity, proportionate stratified sampling was later used to determine the number of sampling elements in each strata.

Research Instruments

A questionnaire was designed to identify the extent to which information sharing impacted on hotel performance. The questionnaire was developed in several stages. Firstly, a questionnaire was drafted based on extensive literature review. The draft was then discussed with academic colleagues. Using their valuable input, changes to the structure and form of the questionnaire were implemented. This resulted in the development of a five point Likert scale continuum which itemized the domains of information sharing into a set of activities. Interviews were also conducted. Open-ended questions were developed to guide semi-structured interviews with the aid of unstructured questionnaires in the form of interview guides.

Validity and Reliability
To ensure and increase stability of the measure, a pilot study was conducted on the research instrument. Validity and reliability (internal consistency), as measures of the representativeness and completeness of an instrument, are important if research is to be well inclusive. Also, Van-Teijlingen and Hundley (2001) note that pretesting is useful since it helps to establish whether the study techniques are effective and helps to uncover internal variability’s, hence making the instrument more objective. Before the onset of the study, the questionnaire and interview guides were pretested on the respondents to ensure purification, and to ascertain their validity and reliability. These respondents bore the same characteristics as the study’s sample however these respondents were not included in the final study. The reliability of the research instruments was analyzed using Cronbach’s alpha (Cronbach, 1951). Cronbach’s alpha is a popular reliability testing method. It indicates the extent to which questionnaire items can be treated as a single latent construct. Table 1 shows the reliability results.

Table 1 Reliability Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>No. of items (N)</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incentive Alignment</td>
<td>5</td>
<td>.747</td>
</tr>
<tr>
<td>Hotel Performance</td>
<td>8</td>
<td>.902</td>
</tr>
</tbody>
</table>

A 0.7 reliability is considered adequate for a survey instrument (Bland and Altman, 1997), although some authors consider 0.6 and higher adequate (Field, 2000). In this study, questions that yielded a Cronbach alpha value of 0.7 and above were acceptable in line with Cronbach (1951). Having an alpha coefficient of 0.9 indicates that the gathered data has a relatively high internal consistency and could be generalized to reflect opinions of all the respondents in the target population.

Data Analysis

Descriptive Statistics

Descriptive statistics was employed where percentages, measures of central tendency: the mean, mode, median, and measures of dispersion: the range, variance and standard deviations were used.

2.5.2 Logarithmic Transformations

Logarithmic transformations of variables in a regression model are mostly applied to handle situations in which non-linear relationship exists between the variables (dependent and independent variables). Logarithmic transformation ensures transformation of highly skewed or non-normal variables into a more approximately normal variable. The resulting distribution is referred to as log-normal distribution and is usually normally distributed. The logarithmic transformation model employed in this study is discussed below.

Linear-log model: \( \log Y_i = \alpha + \beta X_i + \varepsilon_i \)

In this type of log-linear model, one-unit increase in the variable X leads to an expected increase in log Y of \( \hat{\beta} \) units. To obtain the expected value of Y, we multiplied \( e^{\hat{\beta}} \). For instance, for every unit increase in the independent variable X multiplies the expected value Y by \( e^{\hat{\beta}} \).
The transformed regression model that guided analysis for this thesis is presented underneath.

\[ \log(\text{Y}) = B_0 + B_1 \text{X}_1 + B_2 \text{X}_2 + B_3 \text{X}_3 + B_4 \text{X}_4 + B_5 \text{X}_5 + \epsilon \]

Where: \( Y \) = Hotel Performance
\( \log \) is the natural logarithm in
\( B_0 \): Constant
\( \text{X}_1 \): Incentive alignment
\( \text{X}_2 \): Information Sharing
\( \text{X}_3 \): Joint Improvement
\( \text{X}_4 \): CPFR
\( \text{X}_5 \): Decision Synchronization
\( \epsilon \): error / “noise” term reflecting other factors that influence performance

\( B_1 \ldots B_5 \) are regression coefficients

The statistical model used for analysis of the effect of the moderator is provided below as follows.

\[ \log(\text{Y}) = B_0 + B_1 \text{X}_1 + B_2 \text{X}_2 + B_3 \text{X}_3 + B_4 \text{X}_4 + B_5 \text{X}_5 + B_1Z \text{X}_1Z + B_2Z \text{X}_2Z + B_3Z \text{X}_3Z + B_4Z \text{X}_4Z + B_5Z \text{X}_5Z + \epsilon \]

Since hotel performance is unlikely to be predicted solely by Incentive Alignment and mediation by cooperative behavior, other predictor variables were added on to the model to make it more realistic and wholesome.

Quadrant analysis which is one way of simultaneously analyzing what attributes are important to consumers and how consumers rate particular brands, processes according to those attributes was employed. Based on the BCG matrix, Priorities Factors for Improvement (PFI) are obtained. FPI were obtained by drawing a scatter plot of satisfaction index versus the relative importance of factors as determined by correlation coefficient. This method further outlined which processes are most important yet lacking in the present collaborative relationships

**Results**

**Table 2 Role of Incentive Alignment**

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Mean Response</th>
<th>Overall Response (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agreements on order changes are always arrived at.</td>
<td>0.0%</td>
<td>3.0%</td>
<td>6.1%</td>
<td>57.6%</td>
<td>33.3%</td>
<td>4.21</td>
<td>84%</td>
</tr>
<tr>
<td>Costs are mostly shared with key suppliers</td>
<td>0.0%</td>
<td>3.0%</td>
<td>6.1%</td>
<td>78.8%</td>
<td>12.1%</td>
<td>4.0</td>
<td>80%</td>
</tr>
</tbody>
</table>
When asked whether agreements on order changes are always arrived at in their organizations, the respondents overwhelmingly agreed, with a mean response of 4.21 (84%). In particular, 33.3% and 57.6% of the respondents strongly agreed and agreed, respectively, on the same aspect. According to the respondents, costs are mostly shared with the key suppliers, in overall, their agreement level stood at 80% (with a mean rating of 4.0). More specifically, over 78% and 12% of the respondents either agreed or strongly agreed that the costs are shared. In addition, the hotels offers a delivery guarantee to ensure a peak demand as an incentive, this received a mean response of 3.97 (79%), with majority (69.7% of the respondents) agreeing and (15.2% of the respondents) strongly agreeing on the same.

When asked whether their organizations do anything to ensure high standard in product quality, majority (66.7%) of the respondents agreed, 15.2% of the respondents either strongly agreed or were neutral that their organizations offers long-term incentive schemes. In overall, there was a good indication that the organizations offer various long-term incentives to ensure a high standard in product quality. This was indicated with high mean rating of 3.95 (79%). In addition, the respondents agreed that risks are always shared with their key suppliers. This was indicated by a mean response rate of 3.48 (70%). More specifically, more than 50% of the respondents agreed on the same.

However, the researcher asked the respondents a negated statement to check whether the respondents were consistent in their responses. Notably, majority (60.6%) of the respondents were in disagreement that order changes are never arrived at. In overall, a relatively low mean responses was evidence on this aspect with a mean response of 2.0 (40%).
In summary, the respondents agreed with various aspects relating to role of incentive alignment in performance of Kenyan hotels. This received an overall mean rating of 3.59 (75%) out of the 5 possible points. This information is illustrated in Table 4.3. This finding is supported by Narayanan and Raman (2004) who found out that a supply chain works well if its companies’ incentives are aligned, that is, if the risks, costs, and rewards of doing business are distributed fairly across the network. If incentives aren’t in line, the companies’ actions won’t optimize the chain’s performance. Incentives alignment role on performance has also been acknowledged by Bowersox (1990).

Multiple regression analysis was used to test the hypothesis as to whether incentive alignment in collaborative supply chain relationships significantly or does not significantly influence the performance of hotels in the Kenyan hospitality industry.

Table 3: Multiple Regression Analysis

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>p-value</th>
<th>95.0% Confidence Interval for B</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>.242</td>
<td>.011</td>
<td>21.787</td>
<td>.000</td>
<td>.219 - .265</td>
</tr>
<tr>
<td>Incentive alignment</td>
<td>.055</td>
<td>.002</td>
<td>.252</td>
<td>27.888</td>
<td>.000 - .051</td>
</tr>
<tr>
<td>Information sharing</td>
<td>.062</td>
<td>.002</td>
<td>.297</td>
<td>30.231</td>
<td>.000 - .057</td>
</tr>
<tr>
<td>Joint Improvement</td>
<td>.057</td>
<td>.002</td>
<td>.285</td>
<td>31.065</td>
<td>.004 - .053</td>
</tr>
<tr>
<td>Collaborative planning, forecasting and replenishment</td>
<td>.053</td>
<td>.002</td>
<td>.280</td>
<td>26.883</td>
<td>.000 - .049</td>
</tr>
<tr>
<td>Decision Synchronization</td>
<td>.061</td>
<td>.001</td>
<td>.515</td>
<td>52.858</td>
<td>.003 - .059</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Log_Trans_Average_Hotel_Performance_Score

As observed in Table 3, Incentive alignment has a p value =0.000 which is p<0.05, implying that it is statistically significant in predicting the hotel performance at 5% significance level. Further, p<0.005 indicates that we should reject the null hypothesis and conclude that there is linear relationship between incentive alignment and hotel performance. That is \( \rho \neq 0 \).

To transform back our model to the form \( Y = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5 + \varepsilon \), Y was unlogged by obtaining \( e^{\beta_i} \), where \( i = 0, 1, 2, 3, 4, 5 \) this gives the terms of effects of changes in X on Y. The unlogged coefficients are illustrated in Table 3.
For a unit change in X, there is a corresponding change of \((e^\beta - 1)\) in Y. From the table 4, all the \(B_i\) are positive, this implies that an increase in one of the independent variable leads to an increase in the level of hotel performance. For instance, if all the independent variables are equal to zero, the level of hotel performance will be 0.273895 units. As seen in Table 4, if all other independent variables other than incentive alignment are set to zero, a unit increase in incentive alignment will lead to an increase in hotel performance by 0.056906 (5.6%).

The moderating role of co-operative behaviour was added into the relationship to check if it would alter the linear relationship between incentive alignment and hotel performance. The analysis is presented in Table 5.

### Table 4: Unlogged Coefficients

<table>
<thead>
<tr>
<th>Variable</th>
<th>Untransformed (B_i)</th>
<th>(e^{\beta_i})</th>
<th>(B_i(e^{\beta_i} - 1))</th>
<th>Std. Error</th>
<th>(p)-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>0.242</td>
<td>1.273895</td>
<td>0.273895</td>
<td>0.011</td>
<td>0.000</td>
</tr>
<tr>
<td>Incentive alignment</td>
<td>0.055</td>
<td>1.056906</td>
<td>0.056906</td>
<td>0.002</td>
<td>0.000</td>
</tr>
<tr>
<td>Information sharing</td>
<td>0.062</td>
<td>1.063499</td>
<td>0.063499</td>
<td>0.002</td>
<td>0.000</td>
</tr>
<tr>
<td>Joint Improvement</td>
<td>0.057</td>
<td>1.058252</td>
<td>0.058252</td>
<td>0.002</td>
<td>0.004</td>
</tr>
<tr>
<td>Collaborative planning, forecasting and replenishment</td>
<td>0.053</td>
<td>1.054768</td>
<td>0.054768</td>
<td>0.002</td>
<td>0.000</td>
</tr>
<tr>
<td>Decision Synchronization</td>
<td>0.061</td>
<td>1.062848</td>
<td>0.062848</td>
<td>0.001</td>
<td>0.003</td>
</tr>
</tbody>
</table>

### Table 5: Moderating Effect Analysis

<table>
<thead>
<tr>
<th>Model</th>
<th>(B)</th>
<th>Std. Error</th>
<th>(t)</th>
<th>(p)-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.30363</td>
<td>0.066023</td>
<td>4.599</td>
<td>0.0001</td>
</tr>
<tr>
<td>Incentive alignment</td>
<td>0.035486</td>
<td>0.019485</td>
<td>1.821</td>
<td>0.0805</td>
</tr>
<tr>
<td>Information sharing</td>
<td>0.095398</td>
<td>0.015448</td>
<td>6.175</td>
<td>0.0000</td>
</tr>
<tr>
<td>Joint Improvement</td>
<td>0.012689</td>
<td>0.025289</td>
<td>0.502</td>
<td>0.6202</td>
</tr>
<tr>
<td>Collaborative planning, forecasting and replenishment</td>
<td>0.070999</td>
<td>0.013453</td>
<td>5.278</td>
<td>0.0000</td>
</tr>
<tr>
<td>Decision Synchronization</td>
<td>0.078933</td>
<td>0.008083</td>
<td>9.765</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

**Interactions**

143
From the results, it is clearly established that adding cooperative behavioural factors (trust and attitude) to the model changes the relationship between independent and dependent variables.

In addition, with interaction terms, only Decision Synchronization and Trust and attitude ($p = 0.0283$), Joint Improvement and Trust and attitude ($p = 0.0467$) and Information sharing and Trust and attitude ($p = 0.0374$) were found to have a linear relationship with the hotel performance.

Incentive alignment and Trust and attitude ($p=0.3347$) is seen not to have a linear relationship with hotel performance.

What does this portend? This effectively means that the collaborative supply chain practice of Incentive alignment can bring about significant changes in hotel performance without mediation of cooperative behaviour (trust & attitude towards key suppliers).

**Quadrant Analysis for Incentive Alignment**

To be able to know which factors regarding hotel performances were to be given first priority in improvement a scatter plot was developed. It is a data analysis tool normally used to group decision factors into four quadrants based on the Boston Consulting Group (BCG) Matrix for decision making (satisfaction & correlation coefficients). Based on the BCG matrix, Priorities Factors for Improvement (PFI) are obtained. This mode of analysis also provides a snapshot of the status of incentive alignment between hotels and their key suppliers.

As seen in figure 1, it was found that offering long term incentive schemes to ensure a high standard in product quality, allowing an allowance for product defects and sharing of risks with key suppliers were maintenance factors. These factors are prevailing motivators of hotel performance. Offering a delivery guarantee to ensure a peak demand, agreeing on order changes and sharing of costs were continuation indices where the hotels ought to continue providing these services at this level.
African Journal of Co-operative Development and Technology

Figure 1: Quadrant analysis for incentive alignment indicators

Where:

<table>
<thead>
<tr>
<th>No</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>My organization offers a delivery guarantee to ensure a peak demand.</td>
</tr>
<tr>
<td>2</td>
<td>To ensure a high standard in product quality, my organization offers long-term incentive schemes.</td>
</tr>
<tr>
<td>3</td>
<td>Agreements on order changes are always arrived at.</td>
</tr>
<tr>
<td>4</td>
<td>Costs are mostly shared with key suppliers</td>
</tr>
<tr>
<td>5</td>
<td>Risks are always shared with key suppliers</td>
</tr>
<tr>
<td>6</td>
<td>Agreements on order changes are never arrived at.</td>
</tr>
<tr>
<td>7</td>
<td>There is always an allowance for product defects</td>
</tr>
</tbody>
</table>

1.0 Conclusion and Policy Implication

The study concludes that incentive alignment plays a significant role in stimulating hotel performance in the Kenyan hospitality industry. Cooperative behaviour (trust and attitude) was found not to have a significant influence on hotel performance when it mediated the relationship. Therefore, incentive alignment on its own significantly improves operational performance. Incentive alignment in hotel supply chains results in customer loyalty as a result of consistent value and quality being delivered. Hotels in the Kenyan hospitality industry are on the right track with regards to sharing of risks with key suppliers, providing an allowance for product defects and offering long term incentive
schemes such as offering extension services to suppliers of fresh farm produce who are primarily farmers. This is particularly significant especially with regards to standards adherence. The aforementioned services are prevailing motivators of hotel performance and offer high satisfaction. These hotels ought to maintain these services. With regards to offering delivery guarantees and sharing costs with key suppliers, these incentive schemes also offer high satisfaction however are less important and the hotels and their suppliers may consider investing in them as a last option.

References


