

# Perceived Effect of Outsourcing on Organizational Performance in Pakistani Construction Industry

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## ABSTRACT

The purpose of this study is to analyse the perceived impact of outsourcing services including construction works like Electrical, Heating/Ventilating/Airconditioning, Transportation and Civil on organizational performance in construction industry at Karachi. This research is explanatory in nature based on deductive approach. The data was collected with the help of a research instrument i.e. a questionnaire from a sample of 155 employees of the construction industry. Out of 155 questionnaires, 150 questionnaires were received duly completed in all respects. Quantitative data was collected on a Likert scale ranging from 1 to 5 which was further analysed through statistical tools correlation and regression analysis by using SPSS, version 23. The results have revealed a significant relationship between outsourcing services and organizational performance in the construction industry. As per findings of this study, the impact of outsourcing of Heating/Ventilating/Air-conditioning services is not significant on organizational performance, whereas other outsourced services like Electrical, Transportation and Civil works have significant positive impact on organizational performance. The findings of this research are likely to help the management of construction industry. Other organizations of construction industry may also benefit from the results of this study. Academia and other industries, which avail outsourced facilities from local or foreign vendors, may also benefit from the results of this study.

**Keywords:** Outsourcing Electrical services, Heating/Ventilating/Airconditioning services, Civil works, Transportation services, Organizational Performance

## 1. INTRODUCTION

Organizational performance is the utmost desire of all managers who are responsible to complete the given objectives within allocated schedule, within predefined cost and quality standards. Since a number of skills are needed to undertake various activities, organizations try to involve only in those activities which they can do better; remaining parts of the activities are handed

over to those vendors who are believed to be best in them. In reality, most of the activities are achieved through other vendors for ensuring best quality product or service (Azmy, 2012). In case of construction industry, many tasks are outsourced to the organizations that are enjoying better reputation in their respective areas. This research is being conducted to find out the existing outsourcing services for Karachi's construction industry.

During the current era, the organizations have shifted from hierarchical structures to Cross-functional structure. The Managers undertake immense pressure both from internal and external sources while making decisions for successful completion of the task (Lei, D. and Hitt, M., 1995). For this research, outsourcing of constructional works like Electrical, Heating/ventilating/air-conditioning, Transportation and Civil have been considered as the foundation of the Organizational performance. Outsourcing strategy is growing up in construction industry and it is considered essential to find out the strengths and their weaknesses of it. It has been noticed during previous years that most of the companies outsource services when it comes to business process specifically for the construction activities to perform different tasks (Gilley and Rasheed, 2000). The contractual works in construction organizations should include prerequisite to lock the cost of material on annual basis with the supplier or outside contractor to save the time and fluctuation rates.

The study analyzes the relationship between outsourcing and organizational performance by applying outsourcing on most common constructional works in Karachi; like electrical, Heating/Ventilating/Air-conditioning, transportation and civil works, in terms of cost efficiency, good in timeline, quality seeker, and reduces risk. Employees affiliated with the six construction industries NESPAK, Principal Construction Company (Pvt) Ltd, Select Construction, Astral Constructors (Pvt) Ltd, Paragon Construction, & Bahria Town Karachi, participated in this research.

It is the desire of each organization to complete its activities within time. Various factors that contribute to underperformance include cost overrun, compromising on quality and undue delays ultimately lead to dissatisfied performance. Therefore, causes of delays and underperformance need to be unearthed and suitable measures to be undertaken to improve overall performance. The construction industry in Karachi outsources most of the activities which

include installation of electrical panels, electrical cabling and fixtures, hiring of vehicles, civil works and setting up Heating/Ventilating/air-conditioning equipment. Project Manager has the major responsibility to complete activities as per requirements, as per timeline and within budget (Turner & Müller, 2006). Through this research, an effort was made to find out the link between outsourcing and organizational performance.

### *1.1. Research Objectives*

Objectives of this study are as under:

- a) To analyze the impact of outsourcing electrical services on organizational performance.
- b) To evaluate the influence of outsourcing Heating/Ventilating/Air-conditioning services on organizational performance.
- c) To find out the control of outsourcing transportation services on organizational performance.
- d) To examine the impact of outsourcing civil works on organizational performance.
- e) To recommend suitable measures to the construction industry of Karachi, for improvement in outsourcing activities.

### *1.2. Importance of Organizational Performance*

Over the past years, there is a growing realization of the importance of organizational performance. Organizational performance is defined as 'the results of operations of an organization during a given timeframe (Cousins et al., 2006). The research that only considers a single dimension or a narrow range of the performance construct (for example, multiple indicators of profitability) may result in misleading descriptive and normative theory building. Research should include multiple performance measures. Such measures could include traditional accounting measures such as sales growth, market share, and profitability. It specifically sought to establish the effect of outsourcing for employee competence on organizational performance; find out the effect

of outsourcing for cost reduction on organizational performance; examine the effect of outsourcing for innovativeness on organizational performance; and determine the effect of outsourcing to focus on core competencies on organizational performance (Dess et al, 1995).

Successful performance in every organization is natural desire of every manager or organization. To ensure success in their performance, managers adopt various strategies. The most popular strategy to achieve organizational performance/ success is outsourcing. Outsourcing helps in economizing on cost and timely achieving desired quality products or services. Organizations are shifting their core focus onto more competencies rather than the specific tasks. In this scenario outsourcing could be used to perform the specific task which is given by the client to enhance the quality of job and escalating several aspects of their expertise. Outsourcing typically brings the cost reductions and restructuring which leads to more successful outcomes in the organizations domain (Velopi, 2010).

The organizations have been forced by day to day changing resources and market competitiveness to analyse methods of producing goods/ services and in order to maximize economic returns they need to make changes in their processes. The organizations have pursued continuous improvement, leaned up production and re-engineered business processes in order to enable themselves to survive and be profitable in current globalization era. (Brannemo, 2006).

### *1.3. Trends of Outsourcing in Construction Industry*

Outsourcing is the process of relocating some of the company's repetitive internal compulsions or activities through a prescribed agreement to the external contractor or service provider' (WTO, 2005). In other words, Outsourcing creates a meaningful relationship among the service provider and buyer and it is not only the thing for purchasing of services or raw material and standardized services or goods just because a relationship characteristic of outsourcing determines the close

working environment, strategic partnership, better achievement of quality standards and flexible and strong communication strategy to complete the assigned job within predefined estimation and timely completion of activities. A part of this reason, procurement of transitional inputs by usual marketing techniques or using channels have not to be viewed as outsourcing (Sharpe. M, 1997). The recent years has seen an interesting debate on outsourcing. The outsourcing history has a direct link with the history of the growth of the contemporary business organizations. Outsourcing came as a result of over diversification that occurred majorly in the 1970s and 1980s. Results shows that outsourcing mostly use to increase core activities of companies when they sought their non-core competencies and perform these activates by externally (Lysons& Farrington, 2000). Over diversification in the 1970s and early 1980s era has made significant contribution in the development of outsourcing strategy. It helps enterprises to not only review but also to focus on their core competencies (Lysons& Farrington, 2000). In general it is preferred to outsource such activities which require high amount of resources, greater investment or specialized competencies.

Outsourcing saves the overhead and labour cost that is the reason to employ outsourcing for overall improvement of work efficiency. It means that outsourcing can be used for greater productivity and it is an opportunity to focuses on the core products and functions of the business (Deloitte's, 2016). Firms in construction industry often face shortage of domain specific people who possess required expertise and desired skill set. Outsourcing enables organization to not only control their budget but also to manage timely completion of required by taking services from world-class service providers. These organizations support in four major categories like Electrical, Heating/Ventilating/Air-conditioning, Transportation& Civil works during a

construction activities to reduce cost, achieve quality standards and timely completion of the activities (Kakabadse, 2000).

#### *1.4. Challenges of Outsourcing in Construction Industry*

As an emerging trend, there is a continuous increase in Outsourcing in Pakistan in construction sector. Most of the construction companies manage their activities and operations through external operators. In selective outsourcing, companies are not connected to a single vendor for outsourcing of their operations. According to Hashmi & Mansoor (2013), many organizations follow the strategy called 'Best-of-Breed' because it creates a competitive environment and helps them in motivating their employees in improving their performance. This strategy reduces the risk of total outsourcing and initiates organizational learning. Another commonly adopted strategy is called 'total outsourcing'; here companies have only one vendor to perform many of their non-core operational activities. This lowers the transaction at the maximum level as only one vendor is involved. The third type of outsourcing which companies are adopting is called transitional outsourcing. In this option of outsourcing companies outsource their systems but their focus remains on improving in-house staff competencies and skills to maximize their productivity. Most of the construction organizations use a multiple vendor strategy as per nature of works. During the selection of vendors management tries to keep balancing on both sides by selection of cost effective resources or outside contractor. The services of outside contractor must be cost effective, perform within stipulated time, maintain with the high quality standards and remove the risk (Atkinson, 1999).

Basically organizations do not want to expand themselves and prefer for outsourcing the products or services due to high cost required for in-house installation of facilities. Outsourcing is the best strategy for organization to save money and resources and acquire best quality products or services. This is true for installation of Heating/ventilating/Air-conditioning services. For this purpose, organizations work with outside staffs that are having specific expertise. Outsourcing

helps in minimizing risk and enhancing quality standards (John and Wulong Gu, 2008).

#### *1.5. Salient Benefits of Outsourcing*

During recent years, outsourcing has become a global business trend. It is done due to the concentration on reducing operating cost and reduction of production cost. Today, in the era of competitiveness among businesses, companies are looking forward to reduce their operating costs while maximizing profits and maintaining customer loyalty. All these can be achieved by maintaining good relationships with employees and retaining them. Outsourcing is a new way to concentrate on core operations by outsourcing their non-core functions in order to focus on the area to gain competitive advantage (Campbell, 1995).

In construction industry, outsourcing is utmost requirement for effective management. It is a framework that depends on a skill set of a manager's to execute an activity within time, cost, scope, quality and his core interests with the standardized methods to achieving the target and accomplish his task effectively (Beitz, 1998). Outsourcing can be evaluated from various angles:

##### *1.5.1. Cost Effectiveness*

When acquiring expertise from outside in form of outsourcing, cost reduction is the main concern. In case of construction sector, various activities can be outsourced at comparatively reduced price, partially or as a whole, during any phase of the activity. Outsourcing is the way to reduce the cost by allows on-major firms to perform the task or do things to save the hiring of full time staff for only perform these task. Furthermore, organizations can work on low price for contracted assignments or services. Outsourcing strategy may be initiated due to companies are unable to cope with all the activities within the organization, or it may be initiated because the company does not want to hire in-house staff or reduce the cost to perform temporary activities (Whiston, 2014).

### 1.5.2. Completion Timeline

Time or schedule is the most important factor which is considered mostly. If project completion time extends due to any reason which is not mentioned in the management plan, it will not be beneficial for the end user. The main essences can be destroyed if it's not completed as per schedule. In construction, works can be done more cheaply with the help of outsourcing and it can be done more rapidly. Viable pricing terms are commonly used to perform the job by contractors. For example, a 120 sq.yrds house can be built within 6 months by the regular work of the construction company itself; however, the same task can be delivered within 4 months if that job is performed by an outside contractor. Moreover, an operator of earthmoving machine like excavator can finish his work in four hours while a crew will take four days to finish (Benton, 2010).

### 1.5.3. Risk Mitigation

Outsourcing mitigates the risk by building up trust and long term relationship between the client and the outside supplier with a high amount of sharing of risk for successful outsourcing. Outsourcing fails due to poor management of the outsourced relationships (Dapiran et al, 1996). Outsourcing is the best example of sharing of risk. Outside service providers use their own premises, own machineries which saves the extra overhead cost to the client. If this work is performed by the outside contractor who is specialized in the Heating/Ventilating/Air-conditioning domain then he must perform this specified task with their working resources they must have the required tools materials and other accessories/ expertise and risk can be reduced (Jennings & Holt, 1997).

### 1.5.4. Quality Improvement

Outsourcing plays a vital role by providing best quality services for their respective domains. An outside service as outsourcing would have the hiring of staffs or other resources, selection of material, proper training of staff, inspection of work specified facilities that may not be possible if the in-house functions were kept. These all components

are considered quite useful for Quality assurance and quality control. In construction industry client organisations measure the quality factors during performing the related task by outsourcing. An organisation takes advantage by outsourcing by accruing the services of a vendor who is specialized in their domain. This selection gives better control in the construction activity with quality of work. Basically a vendor follows the workmanship standards for assigned task with the true specifications provided by client and mentioned in Bill of quantity. The two main factors of quality are quality control and quality assurance that provides higher levels of quality for completion of task effectively (Kremic et al., 2006).

### 1.5.5. Technology Adoption

The technological changes are happening rapidly. It is the main reason for adopting outsourcing approach. Outsourcing provides advantages to the client firms related to new technology, service provider or outsourced organisation can have access to specialized state-of-the-art technology (Jurison 1995). Reducing the Risk of Technical Obsolescence in construction sectors and their tasks like electrical, civil, and other engineering related works are other important reasons for outsourcing. The survival of any business in the corporate world for the purpose of standing as a competitive market player lies in the fact that it has the most trained and skilled employees. An important component of human resource management is training and development. It doesn't only develop skills and knowledge in employees but also prevents the previous knowledge and competencies of workers from decaying by adapting, enhancing and new technologies (Zoogah, 2011). Adoption of new technological by outsourcing can reduce the issues too, technologies are being changed rapidly that the reason client wants to take advantages through switched on the new enhanced technologies (Clarck, Zmud & McCray, 1995; Grover, Cheon & Teng, 1994; 1996).

## 1.6. Outsourcing Factors in Construction Industry

The salient areas of construction industry's outsourcing include:

### 1.6.1. Outsourcing of Electrical Services

Services like installation of electrical panels, installation of electrical generators, purchasing and fixing of electrical fixtures, installation of telecom distribution boards, intercom systems, fire alarm, and control systems for building management system during construction activities of high rise and residential buildings are mostly outsourced (Schieg, 2007). Most of the electrical services outsource for maintain the activities schedule, cost and perform activities with in scope by contractors. Consultants are also involved for designing of activities (Odusami, 1999). They work for drawing layout, set specific parameters with global standards to build a quality product. There are many reasons to outsourced building management systems of electrical services included reduced operating cost and improve high employee productivity, which lead to lower overall cost in any construction phase (David Clayton, 2003). Electrical engineering professionals are involved in the design, planning and monitoring that are regarded as consultants (Odusami, 1999). In the construction domain of electrical services outsourcing plays a dominant factor. A large activities must be divided into several phases and during working in these phases most of the electrical contractors offer preconstruction phase services and perform the essential actions for the activities like forecasting, detailed scheduling, and procurement of electrical materials. If these pre construction efforts executed with effective planning positively, that can increase productivity with save the client's time and money (Stern, 2013).

Several researches show that organizations can take numerous benefits when they engage in the outsourcing for electrical services specifically. They perform their outsource tasks achieve with cost advantages, save time and reduce over burden of the staff or labour (Quinn 1992, Bettis, *et al.*, 1992, D'Aveni and Ravenscraft, 1994, Lei and Hitt, 1995).

Several construction firms enhanced competitiveness by accruing outside contractors. The contractor provides best solution for clients organizations scope of work like maintenance of generator set, installation of electrical equipment and appliances, because they have expertise in these areas with quality of work and reduce the risk ratio if a client's organization perform these task within organization (Gilley and Rasheed, 2000), (Dess *et al.*, 1995). Outsourcing plays a major role by reducing the manufacturing and minimum investment in plant, machineries and electrical equipment like generators and transformers (Bettiset *et al.*, 1992).

### 1.6.2. Outsourcing of Heating, Ventilating & Air-Conditioning Services

Non-core function must be outsourced if an organization succeeds in disaggregating Heating, Ventilating & Air-conditioning activities during construction (Barrett, P, and Baldry 2003). By these outsourced activities, save worst quality workman ship, poor selection of chilling system, inadequate manufacturing of ducting works and using dirty filters can effect reduces equipment's proficiency resultantly poor heat transfer and can impact cooling system' efficiency (Elyna Myeda, Nizam Kamaruzzaman, & Pitt, 2011). Organizations take control these services with the help of outsourcing companies who provide specialized expertise that cannot be justified by developing in-house (Beitz, D., 1998). While performing construction proactivities, engineering organizations meet these requirements by open up the options of outsourcing. The main reason for following of this strategy is low cost, quality work and quick and effective expertise. Outsourcing vendors should have a thorough understanding especially in these services for system designing, making of sheet ducts, installation of heating systems as well as installation of air-conditioning systems including with chillers. (Arnold, U., 2000, Lindskog, H. 2005).

### 1.6.3. *Outsourcing of Transportation Services*

In construction industry, transportation refers to the movement of labour, machineries and transportation of materials from one location to another (Chopra and Meindl, 2007). Transportation processes contribute significant role in to a constructional activity and its supply chain (Ballou 2007). Investment in the engineering construction is quite generally big; usually the investment cost influences are high like several billions. Physical distribution of the commodities in the engineering construction a multi-disciplinary process, including all materials, concretes, equipment and so on purchase, transportation, loading and unloading, transporting, packing, allocation, information processing and so on entire process includes in logistics and transportation for construction sites (Kagioglou, Cooper and Aouad . 1999). Before construction activity and during management plan, the organizations seeks the appropriate time, the correct delivery procedures, inexpensive cost and the high quality guaranteed delivery of material supply and perform these activities by the third party who have directly involved in these activities by providing that services. Client organizations make contract to acquire their services for completion of activities. The contractor's firms supply of equipment, provide labour force, as well as all and physical distribution and service (Christopher,1999).

### 1.6.4. *Outsourcing of Civil Works*

A construction building cannot be completed without support of external contractors, this phenomena is very common in construction industry. Several criteria are considered by the principle organizations for selection of outside services (Schieg, 2007). The firms who are involved in construction activities is one of the most significant and profitable economic sectors in all over the world specifically in Asian region. The construction industry is also a main services

provider and contributor to reduce the unemployment rate in the world. (Idoro, 2009). Consultants involve in preparing documents that based on the targets and monitoring the contractor's progress to ensure that targets, deadlines and standards are achieved with mitigating risk, adopt better quality and extreme technological infrastructure. Consultant normally hire for execution of civil works .The role of consultant mitigate the technical risks in a conventional activity. The consultants are sourced from two areas: in-house or external (Havemann, 2007). The most important aspect for selection of contractors is expected delivery time with quality of work for outsourcing of civil works. The clients would examine past performances of the contractors in terms of quality services or work. There is one criterion that is greatly over-emphasized and eventually decisive: the lowest tendering price (Wong et al, 1999). In civil construction worksthe potential expected risk would not be met by the predefined objectives of the scope of work that can be a main reason which must consider during the selection procedure (Jennings & Holt, 1997). The client organizations invest in construction machineries, batch plant and other equipment which can increase the cost awarded job (Bettis et al., 1992). lower breakeven point associated with reduced fixed costs/ extra capital (Gilley and Rasheed, 2000) the most of the firms have chances to take advantages by adoption of new technologies in civil works (Harrigan, 1985).

Outsourcing is a best strategy to acquiring the globally emerging technology for any civil constructional planning drawings and execution. Client organization adopts this strategy without significant investment in the technology and totally focuses on core competencies(Kotabe and Murray, 1990; Quinn, 1992; Dess et al., 1995; Sang, 2010).

1.7. Theoretical Framework

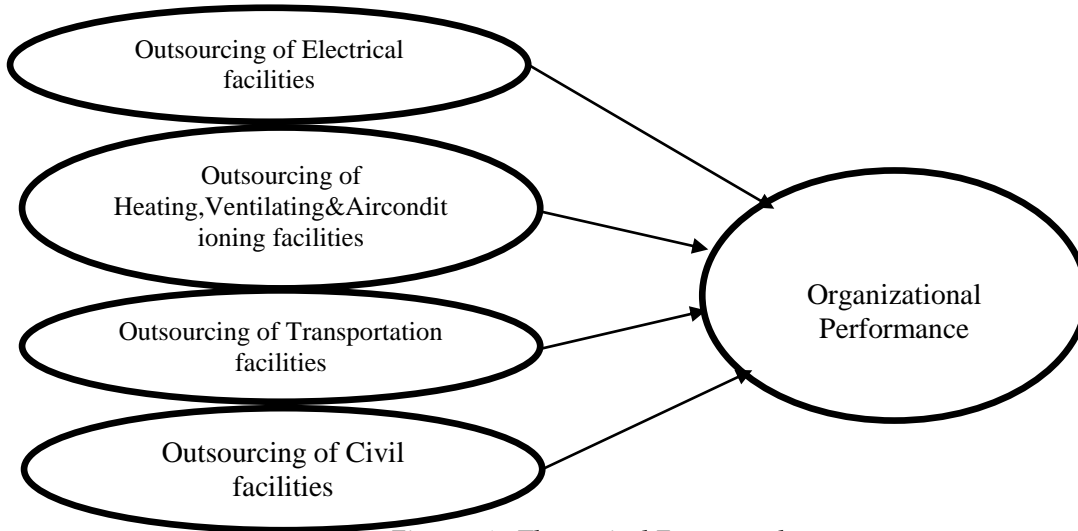


Figure- 1: Theoretical Framework

1.8. Research Hypotheses

**H1:** There is a positive impact of outsourced electrical services on organizational performance.

**H2:** There is a positive impact of outsourced heating, ventilating & air-conditioning services on organizational performance.

**H3:** There is a positive impact of outsourced transportation services on organizational performance.

**H4:** There is a positive impact of outsourced civil works/services on organizational performance.

**2. METHODS**

2.1. Reliability Test

Reliability means appropriateness and uniformity of the tool, measuring concept, and the same id free of biasness and error. The reliability test of the variables has been conducted by using Cronbach’s alpha analysis. This analysis would help to identify average positive correlation between the items under discussion. The criteria are that the test value must be greater than 0.7 in that case primary collected data is reliable to conduct further analysis (Sekaran & Bougie, 2010).

**Table 1.** Reliability test values

S. No	Variables	Cronbach Alpha	Items
1.	Outsourcing of Electrical Services (OES)	.901	4
2.	Outsourcing of Heating/Ventilating/Air-conditioning Services (OHS)	.948	3
3.	Outsourcing of Transportation Services (OTS)	.907	3
4.	Outsourcing of Civil Works (OCW)	.912	4
5.	Organizational Performance (OP)	.868	4

The reliability analysis consists of four questions related to dependent variable “organizational performance” which finds the reliability of these four questions. N shows the number of questions and Cronbach’s Alpha value

is 0.868 which is greater than standard value 0.70. It shows that questions are reliable.



2.2. Regression Analysis

Regression analysis deals with the coefficients of linear equation. It includes more than one independent variable and anticipates the relevant change occurring in dependent variable due to independent variables used in the research.

Actually, it records the amount of change that occurs in the dependent variable when one of the independent variables change and others remain fixed. This test produces Model Summary, ANOVA, and Co-efficient correlation tables.

**Table 2. Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.670 <sup>a</sup>	.449	.434	.59801

a. Predictors: (Constant), OES, OHS, , OTS, OCW

b. Dependent Variable, OP

The values of R, R square, Adjusted R Square and Std. error of the estimate are explained in The Model Summary. The value of R is 0.670 which states the proportion of variation in dependent variable determined with the help of regression model. The value of R square should range between 0 to 1; smaller value of R square shows that the model does not fit well with the

data collected through the items of the questionnaire. Value of R square is 0.449 which reflects that 44.9% of the variation in the organizational performance (dependent variable) is explained by all other independent variables. The values obtained from model summary table favors this research and also explains that model fits well with the data collected.

Table 3. ANOVA<sup>a</sup>

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	42.339	4	10.585	29.598	.000 <sup>b</sup>
	Residual	51.854	145	.358		
	Total	94.193	149			

a. Dependent Variable: OP

b. Predictors: (Constant), OCW, OHS, OES, OTS

ANOVA is calculated to check that how good model fits with the data. According to the table above, at significance level of 0.000, the value of F is 29.598 which is lesser than predetermined level of 0.05, hence it explains that all independent variables have done well in explaining their variation with dependent variable.

**Table 4** Co-efficients Test

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	T	
1 (Constant)	1.080	.281		3.847	.000
OES	.260	.076	.278	3.426	.001
OHS	.018	.046	.025	.385	.701
OTS	.177	.067	.216	2.644	.009
OCW	.263	.074	.287	3.558	.001

a. Dependent Variable: OP

As per analysis, the co-efficient table concludes that the beta values of OES, OHS, OTS and OCW are .278, .025, .216 and .287 respectively which indicates positive impact of all IVs on Organizational performance. However, the “Significant” values in the last column 0.001, 0.701, 0.009, 0.001, predict the significant impact of the variables except OHS which has insignificant impact organizational performance. Hence, out of four hypotheses, one hypothesis i.e. “There is a positive impact of Outsourced Heating, Ventilation & Air-conditioning Services (OHS) on Organizational Performance” stands rejected whereas remaining three hypotheses are accepted. Summary of these result is projected in table 4.16.

### 3. RESULT AND DISCUSSION

The findings of research analysis show a significant impact of the three-independent variables i.e. outsourcing of electrical services, outsourcing of transportation services and outsourcing of civil works, on organizational performance. However, impact of outsourced Heating/Ventilating/Air-conditioning services is not significant on organizational performance. Results are further discussed in ensuing paragraphs, in the order of hypotheses.

#### 3.1. Outsourcing of Electrical Services

The first independent variable, outsourcing electrical services shows a positive and significant impact of electrical services with organizational performance, in construction industry of Karachi. It means that organisations using electrical services provided by vendors are up to satisfactory level. Organisations outsourced their electrical services to

reduce operating cost, quality and within time completion of services and get improved services adopted with enhance technologies which can improve working environment. Some electrical services are not easy and safe jobs so outsourcing is done on a large scale in construction organizations in comparison to former era of in-house services (Stern, 2013). Electrical services mostly outsource their functions like installation of electrical panels, installation of electrical generators, purchasing and fixing of electrical fixtures, installation of telecom Distribution boards, intercom systems and fire alarm systems etc, for building management system during construction activity of high rise and residential buildings. Most of the electrical services outsource for maintaining the schedule, cost and perform work with in scope by contractors. There are many reasons to outsourced building management systems of electrical services included reduced operating cost and improve high employee productivity, which lead to overall cost reduction in any construction phase (David Clayton 2003). Electrical engineering professionals are involved in the design, planning and monitoring which are regarded as consultants (Oduami, 1999). These outside consultancy services may include detailed planning of procurement of electrical materials and equipment, scheduling of tasks performed during execution and forecasting. If these reconstruction efforts are executed as per management plan correctly, so it can be likely to save the client a great deal of money, time and reducing the efforts (Stern, 2013).

### 3.2. *Outsourcing of Heating/Ventilating/Air-conditioning Services*

The coefficients table values indicate that impact of outsourced Heating/Ventilating/Air-conditioning services on organizational performance is although positive but it is insignificant. It means that Heating/Ventilating/Air-conditioning services provided by the vendors are not up to satisfactory as perceived by the managers of construction industry. In Heating/Ventilating/Air-conditioning services, a thorough understanding of the industry for Heating/Ventilating/Air-conditioning system designing, making of sheet ducts, installation of heating systems as well as installation of air-conditioning systems including with chillers is required by the outsourcing vendor (Arnold, U., 2000, Lindskog, H., 2005). Most of the time outsourcing of Heating/Ventilating/Air-conditioning services can be cost effective in terms of lowered costs, improve and increased the performance during construction services and access to experienced professionals (Mahmoud, 1994).

### 3.3. *Outsourcing of Transportation Services*

As per coefficients table values, the third independent variable value indicates a positive and significant impact on organizational performance. It means that transportation services provided by vendors are up to satisfactory level. By acquiring the transportation services from outside, it reduces consumption time, money, and other resources. Organisations outsourced their transportation services to reduce operating cost, quality and within time completion of services and get improved services adopted with enhance technologies which can improve working environment. Outsourcing is a contract or agreement in which one organisation contracts-out part of its internal activity to another company (Anton ogorelc, 2007). Outsourcing strategy for transportation save the time and cost specifically meeting the target and timeline of the activities. Sometimes, it is too expensive for companies to hire highly skilled engineers on a permanent basis. For this reason, construction organisations can lease employees for

single or multiple activities upon working at a client's facilities or another facility by outsourcing services. Construction organisations considering the pressing business needs, the need to tap external expertise in the core business practices, mechanical engineering is eminent.

### 3.4. *Outsourcing of Civil Works*

In case of fourth variable, the coefficients table values indicates that impact of Civil works on organizational performance is both positive and significant. It means that organisations using Civil services provided by vendors are up to satisfactory level. Organisations outsourced their civil works to reduce operating cost, quality and within time completion of works and get improved services adopted with enhance technologies which can improve working environment (Havemann, G., 2007). Suppliers and manufacturers perform the outsource task as per clients or manager's requirement (Idoro and Okun 2011). For emerging the client's requirements (like creating the civil standards for meeting the requirements, making program for how to implement these standards and setting the targets and deadlines and developing the documents), they all are responsible. Consultant normally hire for execution of civil works. The role of consultant mitigates the technical risks in a conventional activity (Schieg, 2007).

## 4. CONCLUSION

This study was meant to identify the impact of outsourced services on the organizational performance of construction industry. The performance of organization was measured through factors like cost, time and quality which can directly impact on performance of organizations. The construction organizations mostly adopt outsourcing to achieve their satisfaction level in which they can perform best within time, within budget and build a quality product. For the this research, mostly outsourced services in construction industry included Electrical Services, Heating/Ventilating/Air-conditioning services, Transportation services,

and Civil works. Findings of the research depict that there is a positive impact of outsourcing of Electrical services, transportation services and Civil works on organizational performance while a there is insignificant impact of Heating/Ventilating/Air-conditioning services on organizational performance in constructional industry of specified companies in Karachi.

#### 4.1. Recommendation

Following are recommendations for improvement of organizational performance through outsourcing various services:

- Construction industry should pay focused attention on outsourcing of Heating/Ventilating/Air-conditioning services, to ensure that performance is perceived to be enhanced through outsourcing these services.
- Transportation services also need to be improved for which construction industry needs to pay attention for improving employee perception regarding their contribution towards improving performance.
- A promotional campaign should be introduced to focus on outsourcing effectiveness related with the organizational performance and keep the employees informed about the benefits of outsourcing.
- The relationship between organizations and vendors regarding outsourced activities should be enhanced to ensure long term strategic partnership.
- A strategy should be adopted by the management to outsource multiple vendors in order to increase organization's performance level.

#### 4.2. Future Research Proposals

Knowledge generation through research is an ongoing endeavor which needs to be kept alive. Researchers in academia and construction industry may undertake new research on various areas of outsourcing in construction industry, for example; outsourcing of tiling work, kitchen works, piping works and wooden works. The positive or negative impacts of outsourcing of these works/ services on organizational performance of a construction industry can easily be ascertained through such type of research.

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