

## **Factors Affecting Public Procurement Contract Management: The Case of Federal Public Procurement Services, Addis Ababa**

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### **Abstract**

*This research examines the factors affecting public procurement contract management in the case of the Federal Public Procurement Service. The research design is based on qualitative and quantitative methods that address specific characteristics of a selected population of subjects at a point in time. The target population for the study was 111 employees, of whom 83% participated in the survey. The data was gathered from primary and secondary sources. The researchers used stratified sampling techniques in sampling the population. The researcher has identified factors affecting public procurement contract management and ranked those factors according to their relative importance index from the respondent's point of view. Analyzed, 37 factors were considered in the study and divided into 10 groups, which were ranked based on the relative importance of the results. Contract price adjustment, quality, top management support, employee competency, contract monitoring, supplier performance, contract risk management, contract closure, contract terms and conditions, and contract documentation are examples of these. The contract framework agreement on price adjustment is the major factor that affects the contract's implementation. The Federal Public Procurement Services is required to focus on addressing the main issues identified through the research process and work in collaboration with the concerned parties.*

**Keywords:** Contract management, contract risk management, effective contract management

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## Introduction

Public procurement is critical for the delivery of government services. For decades, the issue of purchasing performance has received a great deal of attention from experts, academics, and researchers due to its low level of performance. Despite the administration's efforts to improve it, it is still characterized by low-quality work, goods, and services (Chimwani et al., 2014). The contract is legally binding and determines the stakeholder's job scope, pricing participant's adjustment, project timeline, and management of disagreements among the participant's procurement authorities (Ochola & Kitheka, 2019). In the public procurement contract management process, the most dominant challenges are the choice of suitable procurement methods with reasonable justification, checking, and assessment follow-up mechanisms, which have been recognized as being in the selected company's interest, and document controls and record-keeping, which are also main problems in the government procure area entities (Amemba et al., 2015).

The objective of contract management is to ensure the performance of the contract procedure, complete minimization of fraud and corruption, liquidated damages, unreasonable contractual remedies, contract disagreements among the parties, and strong assessments during stakeholder handover time to check fulfillment of the minimum required specification in similar situations without compromising quality (World Bank, 2018).

The common challenges of the public procurement contract administration method in sub-Saharan African countries are the following: the bottleneck, unpredictable laws, and the regulatory frameworks, manuals, and guides that are vague and outdated. The producer of procurement bias on the contract document sat down with the stakeholders at the initiation of the closing schedule for planned management (Vera, 2014). Many developing countries still suffer from neglect, a lack of proper rules and regulations for contract management processes, poor coordination, and a slow amount of attention given to the central procurement contract management administration system (Wanyonyi, 2015). Several researchers have attempted to approach the public procurement system in Ethiopia. Some scholars have tried to access the federal public procurement service catalog. Procurement project works are affected due to a lack of an effective procurement process, which is the main cause of inadequate service delivery in all public sectors due to a lack of professional

expertise and communication between stakeholders (Anteneh, 2022). The research points out its findings that there is planning and procurement, staff competency of employees, procurement procedures are not conducted according to rules and regulations in the institution, and the utilization of information and communication technology has a greater effect on contract performance in the PPS.

Furthermore, the investigation on effective central procurement contract management in the case of federal public procurement challenges in the implementation of contract management by end users not sending their annual procurement plans on schedule, the annual procurement of the organization being the main challenge in the progress of contract management in the organization, professional employee turnover and training affecting the effectiveness of the contract execution performance in the contract administration directorate, and the technical evaluation procedure in the organization not finishing on the scheduled schedule (Natnaiel, 2020). Tariku (2017) conducted a study on the influencing factors of framework agreement effectiveness in the case of public procurement services in Ethiopia. The study highlighted the suppliers' execution performance, capacity capability, end user procurement planning let sending, and information communication technology system. The study also indicated that supplier performance implementation, end user annual procurement plan sending, and lack of technology usage in the procurement process are challenges in the procurement unit's contract management effectiveness in the organization's procurement strategically goal achievement (Tariku, 2017).

According to the research papers mentioned above, there is a problem with the government's public procurement contract management in Africa, and the problems are not addressed on time, so that the contract management work is not completed properly and within the set time limit. This causes the users to incur unnecessary expenses, and it also encourages corruption-prone people. In Ethiopia, the government procurement system does not work properly according to the laws and guidelines. Hence, the quality of the procurement is not maintained, they are not delivered to the user offices within the scheduled time frame, and most of the user offices accept the goods received from the suppliers without verifying the set minimum standards. For these reasons, contract administration work is not completed on time, and the problems that lead to complaints and disputes are increasing. The previous studies on the government procurement system have shown that attention has been paid to the procurement contract management system, and the laws are

long-standing and keep up with the technological developments of the time. This research fills the gap from previous research papers that used a quantitative research approach, whereas this research used both qualitative and quantitative research approaches and, like the previous researcher, did not touch on the area of contract risk management and contract price adjustment challenges in the contract management implementation. So, this research aims to show the priority of factors that affect contract management execution. Contract management practice, contract risk management, effective contract management, and contract price adjustment were the factors considered in contract implementation. In addition, the organization should collaborate with stakeholders to solve problems, amend and non-binding laws and regulations, and provide end-users with high-quality goods and services.

### **Literature Review**

Category management, contract management, and contract process are the three components of contract management theory (Knoester, 2005). The concept of category management manages the initiation of the contract process, while contract management is the involvement of all terms' governance. To maintain value for money, the right information is delivered to the right place for all public entities to identify and evaluate potential bidders who have been fairly engaged. The procurement process can be analyzed using a six-stage model. These six phases include procurement planning, referendum planning, solicitation, source selection, contract management, and closing (Rendon, 2011). Specific causes of poor performance in contract management execution can include a poor contractor selection process, a lack of key stakeholder engagement, poor contract performance, and a focus on price rather than total round-life cycle costs (Michael, 2022). Contract monitoring system in public procurement terms and conditions not clearly stated under the contract document and monitoring check list and tools not prepared how to the contract implementation (Yusuf & Leavitt, 2014). Records management is essential if there is good governance in public entities during the procurement process implementation records are available to provide documented evidence of compliance requirements for effective contract management (Chimwani et al., 2014). Other researchers (Kombo & Tromp, 2011) have similar knowledge and considers at poor documentation management misplaced, improper manage and not environment protection considered. Contract termination is the final stage of the contract management process. The lack of a minimum standard for mandatory quality assurance evaluations and the mistake

throughout its analysis of closeout contracts dedicated to effective contract management administration. Risk management is the systematic process of identifying, analyzing, and responding to risks. Develop a risk content plan to reduce all identified hazards procedures at an acceptable level, tools use to manage contract risk quantitative risk analysis, risk response plan (Srinivas, 2018).

The impact of price adjustments on contract management life cycle management from execution to contract management system handover in the organization. They identify important steps, including risk identification, risk assessment, delivery, monitoring, and control as critical steps to achieving the contract's objectives (Schoenherr & Tummala, 2011). Success in contract management comes with challenges such as insufficient funding, insufficient working tools and equipment, inflation, unclear specifications, requirements for changes in contract performance, slow completion of works, insufficient human resources, and acts of bribery and corruption in work contracts (Ramadhani, 2012). Resources that affect the state's ability to fund personnel and other costs related to exact cost forecasting, analyzing contractor capacity, and training new government contract management staff (Akhtar, 2011). The determinants of procurement contract management on organization performance at the Technical University of Mombasa (TUM) in Kenya. The statistical researchers studied the determinants of procurement contract management. Quality guarantee, contract supervision of services, contract monitoring for compliance with terms of reference, timely expenditures during contract performance and contract management relationship the parties (Ochola & Kithaka, 2019).

It is important to regularly train staff to equip them with the necessary skills and knowledge to improve the effectiveness of public procurement management. According to the researchers, Julius & Gershon (2019), they investigated the effects of procurement strategies and contract management practices on the performance of road construction projects in Ghana. A quantitative study was conducted in our country by Nataniel (2020) on the assessment factor determining the success of centralized management of procurement contracts in public procurement. The researcher identified a significant study gap in which the central procurement system completes inefficient responsibilities, minimizes value for money, and hinders the country's development. The effluence of contract management practices on the effectiveness of procurement of goods in Bahir Dar, Ethiopia Contract management practices and procurement effectiveness have been

found to have positive and significant relationships with contract formulation practices and contract administration (Gebregiorgis, 2020).

The development of a conceptual framework begins with a logical assumption that a problem exists and can be solved using processes, procedures, functional approaches, models, or the application of theory (Roux et al., 2021). The conceptual Framework the study employed is directly adapted and modified the work of Kiage, J. O. (2013)

### **Methodology of the Study**

The objective of quantitative research is to quantify the frequency, current conditions, and processes that constitute a form of reality in that they occur under a wide variety of conditions. Whereas qualitative studies are frequently immersed in data and look at it more subjectively to the study population conduct in the inquiry in a subjective manner (Abiy et al, 2009). The lion share of the study takes the qualitative approach analysis method because described qualitative research as an approach to understanding the individual or collective meaning of a social aspect of problems in the organization. According to Creswell (2014), the qualitative research process has a number of features, including that data are collected in the participant's setting. Therefore, the researcher used both quantitative and qualitative research approach method.

The researcher used both descriptive and explanatory research design. The descriptive design is used to examine different variables, recite results, and reach a conclusion for this study. The design of the explanatory study establishes a cause-and-effect relationship between the variables. The researcher uses facts or existing information to critically analyze and evaluate the data or information (Abiy et al., 2009).

The researcher used stratified random sampling technique for the selection of PPS staff, end-user organizations, and suppliers—the experts directly involved in the procurement work activities. The samples are selected in such a way that the existing subgroups in the population are more or less reproduced in the sample. In addition to that stratified sampling method, ensuring certain segments of the population are not overrepresented or underrepresented helps ensure a sample that accurately reflects the population being studied. For this study, the researcher has used a stratified sampling method to administer questionnaires and obtain a representative sample.

The researcher uses both primary and secondary data collection methods for this research. Primary data collection is by questionnaire, group interviews, observations, and case studies or by critical incidents (ASMDOC, 2010). The questionnaire contains closed-ended questions on the 5 Likert Scale from "Strongly Disagree" = 1 to "Strongly Agree" = 5. The researcher tested questionnaire validity randomly choosing 10 people work in the federal public procurement service. The research conducted key informant interviews with the federal public procurement service contract management directorate, market analysis directorate, procurement technic and quality assurance directorate in the organization. The desk study was discussed among senior contract management experts, marketing study and analysis experts, and procurement technical and quality assurance experts in the federal public procurement service.

The research conducted key informant interviews with the federal public procurement service contract management directorate, market analysis directorate, procurement technic and quality assurance directorate in the organization. The researcher used sampling technique by determining the sample proportion's success and not a success based on the experience from previous response rates for surveys. The researcher investigated 47 staff members who were working in the procurement department. The total number of selected staffs from federal organizations was 105 and suppliers were 98 staff. The total population of research is 250. According to Patrick, B. (2003), the researcher will use sampling technique by determining the sample proportion's success and not success based on the experience of survey research response rates. Patrick, B. (2003), says that a success rate of 50% is "adequate", a 60% response rate is "good," and a 70% rate or higher is "very good". The researcher is going to use a 75% response rate and a remaining 25% non-response rate for the study, and the sample size is determined at a 95% confidence level. Based on the above conditions, to determine the sample size of PPS, selected federal organizations and suppliers are located in Addis Ababa using a formula (Kothari, 2004).

$$n = \frac{z^2 \cdot p \cdot q \cdot N}{e^2 (N-1) + z^2 \cdot p \cdot q}$$

Where p is portion of success = 75%, q is proportion of fail = 25%, n is sample size, z is confidence level = 1.96, e is standard error = 5%, N is total population = 250, and the total sampling size of this study is 134 respondents.

The Statistical Package for Social Sciences (SPSS 26.0) was used for data presentation and analysis of (mean, frequency, percentage) and Relative Importance Index (RII) for rank analysis. To examine the data in accordance with the index's weighting and order (Strongly Disagree=1, Disagree=2, Neutral=3, Agree=4, and Strongly Agree=5). The following formula used to construct the relative importance index.

$$\text{Relative Importance Index (RII)} = \frac{1n_1+2n_2+3n_3+4n_4+5n_5}{AN}$$

Where:  $n_1$  is the number of survey participants that selected “strongly disagree”,  $n_2$  is the number of survey participants that selected “disagree”,  $n_3$  is the number of survey participants that selected “neutral”,  $n_4$  is the number of survey participants that selected “agree”,  $n_5$  is the number of survey participants that selected “strongly agree”. In this instance, the maximum weight is five, and the total number of respondents is N, A is the highest weight, in our case it is 5.

### **Data Presentation, Analysis and Discussion**

In this study, 37 factors are negatively affecting public procurement contracts in the case of the federal public procurement service in Addis Ababa, Ethiopia. The researcher has identified and ranked according to their relative importance value. These factors have been classified into 10 groups: contract terms and conditions, contract monitoring, contract documentation, contract closure, contract risk management, top management support, employee’s competency, quality, supplier performance and contract price adjustment.

#### **Factors under Contract Management Practice:**

##### **Contract Terms and Conditions**

To measure contract terms and conditions in the bidding document prepared, four factors were developed in this research.

In the table below, monitoring criteria is in the first position among contract terms and conditions factors, with an importance index value of 0.629. This factor was also ranked 24 among all 37 factors, negatively affecting contract management (table 1), which inferred that monitoring criteria that were not clearly stated in the bidding document preparation affected the monitoring and



evaluation of contract management development during the execution. The monitoring criteria did not mention in the bidding document how contract management experts evaluate and control the contract execution on the site, causing subjective bias and causing conflict between the client's and the supplier's or contractor's relationships. Major contract terms and conditions that were not clearly stated in the bidding document had a higher effect on contract management practice and were ranked in the second position in the contract terms and conditions group with a relative importance index value of 0.602. The major contract terms and conditions also ranked 28 among all 37 factors that negatively affected contract management practice. Terms and conditions in poor contract management cause unhealthy relationships, low qualified contractors or suppliers performed, a lack of stakeholder engagement, and the contract management system focuses on total cost rather than life cycle cost. Similarly, terms and conditions that are not clearly stated in the bidding document cause contract breach, opportunity cost increase, and scope creep the contract happiness.

**Table 1***Contract Terms and Conditions*

Statements	RII	Rank
1 The major contract management terms and conditions did not clearly state in the bid document.	0.602	2
2 All contractual obligations for both parties did not clearly stated in the bidding document.	0.573	4
3 The monitoring criteria did not clearly state in the bidding document.	0.629	1
4 The purposes of the contracts did not well define in the bidding document.	0.595	3

Source: Survey result

**Factors Regarding Contract Management Monitoring**

Three factors were developed in research to measure procurement contract monitoring practice in contract management. Lack of monitoring tools has a greater impact on contract management practice, with a relative importance index value of 0.683, and is ranked 9th out of 37 factors that have a negative impact on contract management. As a result, it is difficult to monitor and evaluate what worked out on the site because of the absence of checklist rules and regulations on when,

where, and how questions are answered by the contract management experts. Monitoring and evaluation schedules were not regularly laid out, including the types of goods, work, and services procured, inspections, and delivery system control; also, the payments made to the contract manager or expert were not easily managed. This ideal is supported by the researchers Ochola and Kithika (2019), who associate contract supervision with the completion of the term of reference, timely fulfillment of expectations during the contract performance, and developing a contract monitoring relationship between the parties.

**Table 2***Contract Monitoring*

No.	Statements	RII	Rank
1	PPS does not have a regular monitoring schedule.	0.631	2
2	PPS does not use standard monitoring tools.	0.683	1
3	PPS does not a cost-effective monitoring system.	0.630	3

Source: Survey result

**Factors Regarding Contract Documentation**

Four factors were developed to measure procurement contract documentation practices in contract management. The table below shows that the most important factors in this group were the lack of a standard contract reporting system, followed by the lack of good contract documentation, access to supplier profiles, and a long-term documentation management system. The above table shows that the lack of a standard contract reporting system was ranked the first (RII = 0.601) and also ranked in 29 of the 37 factors negatively affected by contract management. This result shows that the contract management did not use a well-organized format, which nobody can easily understand without guidance, in the same way that the expert did not manage in an effective and efficient way. Lack of access to suppliers' profiles took second place with the value of RII = 0.600 from the contract documentation group, and also the average effect on contract management was 30 of the 37 factors negatively affected. The above results show that contracts have improper contract documents, drawings, specifications, liquidated damage evidence, progress reports, and site supervision—all because of delayed contracts. Poor recorded management during work

assessment is effectively impossible, according to Kombo and Tromp (2011). The weaknesses are the costs and the lack of expectation of achieving the strategic goal of completing the plan.

**Table 3**

*Contract Documentation*

No.	Statements	RII	Rank
1	There is no good contract documentation.	0.593	3
2	The contract management did not easily access the supplier's profile.	0.600	2
3	The contract management has not organized long-term document management system.	0.577	4
4	The contract management system did not use a standard format for contract administration reports.	0.601	1

Source: Survey result

**Factors Regarding Contract Closure**

To measure procurement contract closure practice in contract management, four factors were developed in this research. The table below shows that the most important factors in the contract closure group are that contracts did not finish on the planned schedule, followed by the determined contract closing date, the recorded final sum, and failure to perform their duties properly. The above table shows that the most important factor in this group was lack of contract closure that was not planned on schedule finalized, which was the first rank with a value of (RII=0. 679) from the contract closure group, and was also ranked at position 10 of all 37 factors that negatively affected contract management practice. Rendon (2011) agrees, noting that the contract process is a critical stage of the contract management finalization process that did not meet the deadline due to a lack of a standard system for evaluating quality. From the open-ended questions, contract terms and conditions were not clearly stated in the bidding document during the preparation time.

**Table 4**

## Contract Closure

No.	Statements	RII	Rank
1	The contract management system does not determine the contract closing date.	0.672	2
2	The contract management system does not record the final submitted payment.	0.616	3
3	The contract closing date did not finish as per the planned schedule.	0.679	1
4	A satisfactory letter is not given failure to perform their duties properly.	0.614	4

Source: Survey result

**Factors Regarding Contract Risk Management**

Five factors were developed in this research to measure contract risk management in contract management practice. The table below shows that the contract identification plan has a high negative effect on contract risk management with a value of (RII=0. 659) and is ranked 15th out of 37 contract management factors. As a result, the contract management has no risk identification plan during the implementation period, which is not specified in the contract management. The respondents believed that a lack of risk management plan has a greater negative impact on contract management practice than a lack of risk response plan, which is ranked in position 18 of all 37 factors that affect contract management. According to the above results, supported by Schoenherr and Tummala (2011), contract management's objective is impossible without risk identification, risk assessment, and delivery; it is therefore impossible to monitor and manage.

**Table 5**

## Contract Risk Management

No.	Statement	RII	Rank	Percentage
1	PPS does not have a contract risk management plan.	0.638	2	20.32
2	PPS does not have a contract risk identification plan.	0.659	1	20.99
3	PPS does not have a response plan.	0.634	3	20.20
4	PPS does not have a contract qualitative risk analysis.	0.586	5	18.67
5	PPS does not have a quantitative risk analysis.	0.623	4	19.82

Source: survey result

## Factors under Effective Contract Management:

### Factors Regarding Top Management Support in Contract Management

Three factors were developed in this research to measure top management support factors in contract management practice. The table below shows that if contract implementation progress is not checked by top management, it has a higher effect on contract management activities (RII = 0.677) and ranks in position 11 of all 37 factors that negatively affect contract management; Monitoring and evaluation systems that are not supported by top management have a higher effect on contract management execution with a RII value of 0.6455 and rank 17th out of 37 factors that affect contract management. According to Bai and Sarkis (2014), the top management in the organization's poor collaboration with the responsible stakeholders, as well as currency exchange and market price study, are the main factors affecting contract implementation in the organization.

**Table 6**

#### *Top Management Support*

	Statements	RII	Rank
1	The contract implementation system manages cost, quality, and time in the contract process is not checked by the top management members	0.677	1
2	Top management is not committed to contracting management work activity	0.633	3
3	Monitoring and evaluation systems are not supported by top management members	0.645	2

Source: Survey result

### Factors Regarding Competency of Employees in Contract Management

Two factors were developed to measure the competence of employees in contract management practice. The table below shows that the qualification of employees in contract management work who participated in the implementation progress has a greater effect on contract management activities, with the value of (RII=0.665) or 51% of respondents reflecting and ranking in position 13 of all 37 factors that negatively affect contract management. Contract management employees who lack sufficient contract-related training have a greater impact on contract management

execution (RII=0.632), or 49% of respondents reflected and ranked in position 21 of all 37 factors affecting contract management. In the same way, based on the above results, there is also a need to provide enough training for employees concerned with contract-related issues. Mercy (2016) supports this idea by training employees to improve contract implementation effectiveness and salary motivated employees to increase their base contribution to the organization and the sense of an owner able way of thinking.

In addition to this, Josephine (2019) stated that regular training is important for the staff to equip them with the necessary skills and knowledge to improve the effectiveness of managing central procurement. There is also a high concentration for the future in the open-ended questions, unless difficult fairly goods, services, and work procured by PPS is a problem because of procured and durability procurement for sustainability procurement implementation impossible.

**Table 7**

*Competency of Employees*

No.	Statements	RII	Rank
1	Professionals do not have qualifications that allow them to carry out contract activities.	0.665	1
2	Contract management actors do not have sufficient training on contract issues.	0.632	2

Source: Survey result

**Factors Regarding Quality in Contract Management**

Three factors have developed in this research to measure quality factors in contract management practice. The table below shows that the quality and safety procured of goods, services, and work has a higher effect on contract management activities than the value of (RII = 0.719) and is ranked in position 8 of all 37 factors that affect contract management; The procured system does not respond to end-user requests and fulfill has a higher effect on contract management monitoring and evaluation with a value of (RII = 0.663) and is ranked in position 14 of 37 factors affecting contract management; These issues affect the quality procurement concept, evaluation criteria, market issues, contract management change relationship problems, contract performance issues, and contract closeout issues that happened during the implementation of the contract management

in the organizations. This idea is supported by Ramadhani (2012), who states that success in contract management is affected by unclear specifications and requirement changes in the execution of quality inspection during the contract delivery time.

**Table 8**

*Quality*

	Statements	RII	Rank
1	Procurement of goods, work, and services do not maintain quality and safety.	0.719	1
2	Procure goods, work, and services do not respond to end-user requests.	0.663	2
3	The specification is not available to potential bidders.	0.654	3

Source: Survey result

**Factors Regarding Supplier's Performance in Contract Management**

To measure suppliers' performance in the contract management practice were four factors developed in this research. The table below shows that suppliers who do not deliver on schedule are ranked first with a value of (RII = 0.775) from the supplier performance group and also ranked at position 5 of all 37 factors affected negatively by contract management practice.

Suppliers' slow response to end-user requests is the second significant factor, with a value of RII of 0.7664, making supplier performance the most important factor in this group. This factor also ranked at position 7 of all 37 factors that negatively affected contract management practice in the implementation of contract management. The above results imply that weak contract performance happened due to not having enough experts, a regular monitoring checklist used in the organization, poor communication between the buyer and seller organizations, and top management not giving attention to the contract management department in the organization. Supply management refers to the evaluation, selection, and management of suppliers for the provision of goods, services, and work throughout the contract life cycle.

**Table 9***Suppliers' Performance*

No.	Statements	RII	Rank
1	PPS does not evaluate the supplier's performance during the bid evaluation process	0.569	4
2	PPS does not evaluate the supplier's performance at the contract closing phase	0.571	3
3	Suppliers do not deliver goods, work, and services to end-users without delay as per their requested plan	0.775	1
4	The suppliers do not receive a quick and efficient response from the end-users	0.764	2

Source: Survey result

**Factors under Contract Price Adjustment:****Factors Regarding Contract Price Adjustments in Contract Management**

The table below shows that the most important factor in this group was shortage of hard currency, which is the first ranked factor with a value of (RII = 0.841) from the contract price adjustment factors group and also ranked at position 1 of all 37 factors that negatively affected contract management practice. Inflation is the second significant factor with the value of (RII = 0.840) in contract price adjustment, the most important factor in this group, and also ranked at position 2 of all 37 negatively affected contract management practices; The third important factor from contract price adjustment is delayed market study, which has a value of (RII=0. 787).

**Table 10**

## Framework Contract Price Adjustment

No.	Statements	RII	Rank
1	Estimation of the market price	0.766	5
2	Improper procurement planning	0.784	3
3	Delayed market (price) study	0.787	4
4	Inflation	0.840	2
5	Shortage of hard currency	0.841	1

Source: Survey result



This result indicates that the contract prices are adjusted throughout the contract life cycle, which raised the critical issue of a dispute between the buyer entities and the supplier organizations because the market price study delayed contract execution. According to Mohammed (2013), Hanák (2015), and Borvorn (2011), the effect of contract price adjustment is delayed and cancelled contracts, as well as a reduced number of bidders participating.

### **The Overall Ranks of all Factors Affected Negatively Contract Management**

Overall, all factors had a negative impact on contract management. This shows that the most important factors that affected negatively on contract management practices are: shortage of hard currency, inflation, delay in market study, improper procurement planning, and suppliers who did not deliver goods and work at the planned schedule. Their relative importance indices, respectively, are 0.841, 0.840, 0.774, and 0.775

**Table 11**

Factors Affected Negatively Contract Management (the top twelve factors only presented here)

Statements	RII	Rank
Shortage of hard currency	0.841	1
Inflation	0.840	2
Delayed market (price) study	0.787	3
Improper procurement planning	0.784	4
Suppliers do not deliver goods, work, and services to end-users without delay as per their requested plan.	0.775	5
Estimation of the market price	0.766	6
Suppliers do not deliver goods, work, and services to end-users without delay as per their requested plan	0.764	7
Procurement of goods, work, and services do not maintain quality and safety	0.719	8
PPS does not use standard monitoring tools	0.683	9
The contract closing date did not finish as per the planned schedule	0.679	10
The contract implementation system manages cost, quality, and time in the contract process is not checked by the top management members	0.677	11
The contract management system not determine the contract closing date	0.672	12

Source: Survey result

According to the results of the above table, the lowest factors that affected contract management practice in the organization are: the absence of qualitative risk analyses, the lack of a long-term document management system, contractual practices that are not responsive, and suppliers that are

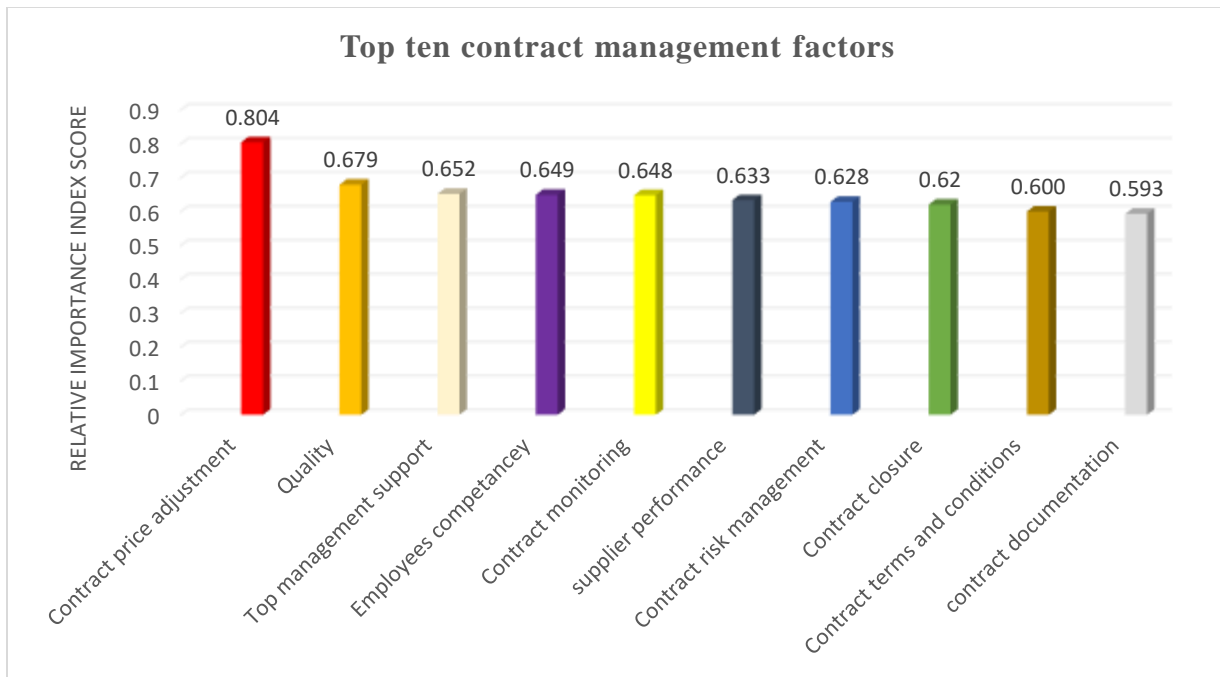
not evaluated both at the contract close and bidding stages, with the relative importance indexes of 0.586, 0.577, 0.573, 0.571, and 0.569, respectively.

### Ranking Factors Group Affected Negatively Contract Management

The researcher analyzed and investigated the overall factors that affected contract management, listed factors, and selected the major important factors that affected negatively. Success factors in Federal Public Procurement Services are not seen on the ground contract implementation throughout the contract life cycle and have not achieved the organization's strategical objective goal.

**Figure 1**

*Ranking Factors among Groups*



Source: Survey result

The above graph shows the results of the contract price adjustment factors in the group. The first 10 factors in the group affected negatively contract management. The result implies that bulk procurement is procured by public entities, and the price adjustment factor is the crucial issue because the contract life span is more than one year. On the day the market situation in Ethiopia included the vulnerable world market, In Ethiopia, the current conditions in the country create

obstacles to price adjustment, i.e., the hard currency exchange rate, internal and external influence, internal political instability, the letter of credit opening problem, the market analysis delay, and the high difference between the market prices and the actual prices of goods, services, and work. As a result, the contract price adjustment problem extends to canceling the contract. Therefore, these contract documentation factors are rated as having only an average or low impact on the contract management practice in the organization.

### **Conclusion and Recommendation**

Under contract management practices, the majority of the respondents replied that contract monitoring criteria were not clearly stated in the bidding document with the value of (RII=0. 648) or 26. The study found that there were poor contract monitoring criteria at the PPS contract management to achieve the delivery period delay and inspection work check list, and the problem did not solve itself at the lower level or with other monitoring and evaluation execution on the ground, making it impossible to achieve the better contract completion goal. The questionnaire results for contract risk management revealed that the contract risk identification plan was the most negatively affected factor in the contract management directorate of PPS, with a value of (21%, RII=0. 659). Quality is one of the major factors influencing implementation under effective contract management, with a value of (RII= 0,679) or 25. 99%. The results demonstrated that the quality of goods, services, and work during the delivery time was not inspected; monitoring and evaluation were based on the contract agreement document, which used the minimum required specifications stated on the tendering document.

Under contract price adjustment in contract management implementation, the respondents reflected on contract price factors affected by internal and external factors exposed the contract price adjustment mechanism, but the respondents reflected on internal problems based on the questionnaire, desk study, and interview. It is further stated that the contract management is being pressured by external problems and that it is affecting the performance of the contract with external values rather than internal problems with the value of (RII = 0. 841) or 51. 91. Contract management is one of the most important factors influencing procurement goal achievement. The aim of this research was to identify factors affecting public procurement contract management and rank those factors according to their relative importance index from the respondents' point of view

in the Federal Public Procurement Services. Furthermore, the 37 factors considered in the study were divided into ten groups and ranked based on their relative importance index results from respondents: contract price adjustment, quality, top management support, and employee competency, contract monitoring, supplier performance, contract risk management, contract closure, contract terms and conditions, and contract documentation, in that order.

Furthermore, one of the research objectives is to make recommendations to improve contract management practices in the Federal Public Procurement Services using the investigation of the study. As a result, the Federal Public Procurement Services must concentrate on addressing the major issues identified during the research process. The organization is also expected to meet its objective by discussing with concerned parties how to improve those identified factors and problems during their contract management progress meeting for a successful implementation. Aside from that, the contracting parties should place a strong emphasis on contract management practices and capacity building in order to achieve significant success.

Based on the findings of the research, the following recommendations are expected from the role players in procurement execution: The study suggests that employees' competence has an impact on effective contract management. The researcher suggests contract risk management practices in the PPS contract management procedure to identify risk areas identified in the contract implementation of the contract management process life cycle. The study suggested that the company should enhance the quality of goods, services, and work procured by the company in the contracting process. The PPS should work with the collaboration of the suppliers and end-users to assure quality improvement and solve the problem. Suppliers are required to deliver in accordance with the contract agreement, and end-users are entitled to timely check and inspection by professionals based on the specification's minimum requirements. Top management should monitor the work done for contract management under contract administration and work to meet the requirements of the work and follow up, provide input and direction, and receive feedback from the employees' work. The study observed contract close and payment delays, a shortage of hard currency, weak contract management price efficiency and effectiveness, professional employee turnover, terms and conditions of the contract not clearly identified, and weak collaboration from the suppliers.

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