



Global Scientific JOURNALS

GSJ: Volume 10, Issue 11, November 2022, Online: ISSN 2320-9186

www.globalscientificjournal.com

**EFFECT OF CASUAL LABOUR MANAGEMENT ON PERFORMANCE OF
CONSTRUCTION PROJECTS IN RWANDA. A CASE STUDY OF RESILIENCE
PROFESSIONALS LTD**

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ABSTRACT

The purpose of this specific study was to assess the Effect of Casual Labour Management on Performance of Construction Projects in Rwanda a case study of Resilience Professionals Ltd. The specific objective is to assess the effect of Casual Labor Performance on the performance of construction projects in Rwanda; to determine the effect of Conflict Resolution Strategies on project performance; and to examine the effect of Critical human resource factors on Project Performance. The Target population was 107 project members within Resilience Professionals Ltd, including the administrative and sites staffs and the sampling technique was Universal simple census technique. The study found that there was a positive and significant relationship between Casual labor management and Construction Projects in Rwanda where the p-value found to be 0.000 less than 0.05 and the R-square Found to be 64.9 % which is the percentage occupied by the study's independent variables on affecting the Project Performance (dependent Variable). All of the independent variables (Labor performance management; Critical human resource factors and Conflict Resolution Strategies) were positively associated with construction projects performance where the p-value found to be 0.000 less than 0.05. The study concluded that Construction Projects performance in Rwanda attributed to its good practices of critical human resource factors and Conflict Resolution Strategies and that is greatly attributed to Casual Labor Management. The study made the following recommendations: This study was mainly focused on effect of Casual Labor Performance on the performance of construction Projects in Rwanda. Thus, the recommendations of this study were derived from the conclusions that all the independent variables significantly influence project performance which was measured by the constraint of time, scope, cost and Quality. A great contribution to be noted by the Construction Project managers is that Lack of or Poor Casual Labor Management practices in all aspects of running a construction project influences project performance. The following were the recommendations of this study.

KEY WORDS: Casual Labour, Management, Performance, Construction Projects

INTRODUCTION

Background and Research Gap

It is now widely acknowledged that the construction industry contributes significantly to economic growth and development, both via the products it produces (buildings and infrastructure) and through the jobs it generates during the construction process. Most nations have policies that aim to promote an effective construction sector. But up until now, the contractors, subcontractors, and consultants that make up the industry have mostly been the subject of research and technical support. The labor force, which is frequently poorly understood, has received little attention.

Currently, there is no research on Casual Labor Management on Construction projects in Rwanda. Despite the volumes of literature on project management in construction industry, delays and cost overrun remain an everyday event in most construction projects. There is therefore need for research to develop a better understanding on casual labor management in construction industry. While the literature review indicates general impact of labor force management on project success, very little research has been done to show specifically the impact of casual labor management on project performance. This research aims to contribute to this knowledge and with an emphasis on Rwanda construction industry.

The result of study showed the impact of Casual Labor Performance on the performance of construction projects in Rwanda; the Conflict Resolution Strategies that may have an impact on managing casual labors; and the critical human resource factors could affect Rwanda's management of casual labors. The researcher also considers the elements required for the project's success. It is clearly elaborated in the conceptual framework how the independent, dependent, and intervening variables relate to one another.

The gap that this research filled was identified by the researcher through critical examination. the writings found from the earliest years before. This implies that earlier

researchers' conclusions might not be relevant now. As a result, the research gap was filled because this study produced current findings that apply to the issue we face today. Indeed, there is need of more researches on this domain to discover more variables affecting project performance. That is a gap needs to be covered by conducting a study.

Literature Review

Casual Labour Performance

According to Benjamin (2013), one prominent feature of casual labourers is that they are labour brokers; they can commit to one or more employers within a short period of time. This means they can choose not to appear for work the following day or week without notice or leave from employer. Being that casual work involves the engagement of workers on an occasional and intermittent basis; the casual wages therefore dictated by the terms of employment agreement whether oral or written must be fulfilled within temporary time schedules. These casual wages vary based on the service trade and the task to be performed. A wage can be defined as a fiscal payment paid towards an employee by an employer in return for the work completed. Pay scales may be different for each individual depending on the work assigned to them, on their qualification, type of work carried out by the labours etc. when lower wages are paid labours show lack of interest in continuing the work given to them hence, extra bonus and compensation has to be given for their performance which in turn motivates the labours to work hard. The factors affecting labour productivity are:

- Lower wages
- Difference in pay scales
- Payment delays

2.1.1 Conflict Resolution Strategies

Conflict has been defined as the impression that a party's goals, interest or objectives are being handicapped by another party, whether actual or imagined, and the degree of conflict is guided by the extend of a party's commitment to a goal. (Mitkus and Mitkus, 2014). Yale, D.J. and Hardcastle (2003) apply a continuum setting to define conflicts by combining the words "claim," "dispute," and "conflict." They begin by describing claim as "a clear affirmation or declaration of a legal right to money, assets, or a reward imposed by law, which can be built

under the terms of the contract; for violation of contract, negligence in common law, or on the quasi-contractual justification". They then describe dispute as an unresolved claim, and then define conflict by integrating the claim and dispute meanings with the sociological definitions of conflict given above arguing that conflicts emerge where there is a misalignment of need, and one individual perceives that this incompatibility is interfering with the satisfaction of that person's needs.

2.1.2 Critical HR Factors

According to (Hafezi et al., 2015), HRM is a strategy and vision that focuses on the development of personnel and how to use it to create organizational competitive advantage while improving group project performance (Cooke-Davies, 2002; Chan et al., 2001). One of the key resources for the effective development of any firm is its human resources. It has been effectively demonstrated by numerous scholars, including Pickett L. (2000), Sparrow P. et al. (2000), Evans P. et al. (2002), and Hayton J. (2005), that HRM is one of the most delicate and crucial areas of action for the future development of project-oriented companies. Temporary structure such as projects and programs lead to organizational differentiation within companies, which therefore also require specific integration structures, such as, project portfolios, expert pool or a Project Management Office (Heumann, 2010).

Review of Empirical Evidence

Fapohunda (2012) in her study on employment casualization and degradation of work in Nigeria, conducted her study on 5 selected companies in three (3) different sectors sampling 135 respondents, she made use of simple percentage and chi-square statistical tool to analyze data and found that remuneration for contract staff is not fair or comparable to that of permanent workers who are denied the rights to organize and benefit from collective agreement. She recommended that casualization be expunged completely from the employment system.

Kenzer (2013) and Mangano and Heldman (2009) studies also show that conflicts in projects occur because the members in the project team have different values, interests, feelings and goals. They also have different personalities which may result to personality

clashes. They further note that project managers are brought into the project environment after the project teams have been formed and these managers impose the business case, time schedule, cost estimates and other constraints on the team, resulting to conflicts.

Evidently, both HRM practices and a project team's knowledge ACAP are significantly related to project performance, but the links between these constructs have seldom been tested (Chuang et al., 2010; Clark and Colling, 2005). Several studies have found that HRM practices in POCs contribute to knowledge integration among project team members and to the identification of possibilities for change (Bredin and Soderlund, 2011; Keegan et al., 2012). For instance, HRM practices can improve the utility of a project team's realized ACAP on outcomes by enhancing project team participation and providing incentives to share best practices and training project related skills (Meng and Gallagher, 2012; Minbaeva et al., 2012).

(Alwi et al., 2001) Discovered that factors like late payments, a lack of financial motivation, rework, changes in design during construction, crowding, the caliber of the drawings, inexperienced supervisors, setting the wrong goals, and a lack of materials on the job site all have an impact on worker productivity and motivation. One of the best methods for assuring project success is supervision since it fosters group problem-solving. Meanwhile, the effectiveness of the supervision used substantially influences whether site activities are completed successfully on the first try. According to Marquez and Kean (2002), effective supervision should prioritize problem identification and rapid resolution in order to advance quality standards, foster teamwork, and guarantee clear communication. Contractors must identify the characteristics of their operators in order to improve the quality of their service delivery, according to Fagbenle, Ogunde, and Owolabi (2011). observed that capable project managers would draw on his prior experience to help projects be successfully completed. Because other success elements (top management's backing, third parties' oversight and reporting, and project teams' and clients' ability to communicate) might be used to one's benefit. (Jha and Iyer, 2006)

Theoretical Conceptual Model

The link between the dependent and independent variables—the research variable—is described in Figure 2.1. The conceptual Framework enables in-depth comprehension of a project's operations, assists in identifying the variables that will affect the project's performance, and explains how each of these variables may relate to and influence the conclusion.

The Independent variable has characteristics such as Casual Labor Performance, which considers employee performance and working conditions and may result in a poor or successful project performance depending on project management and leadership techniques; the Conflict Resolution Strategies component, which includes wages, influences the outcomes of the project performance; and the Critical HR factors influence the project performance outcomes.

Each independent variable has the potential to have an impact on the project restrictions (dependent variable). This kind of influence on the project could be advantageous or detrimental. However, between the dependent and independent variables, there exists the However, there is an intervening variable that can change the relationship between the dependent and independent variables. This intervening variable takes the shape of government policies and leadership style.

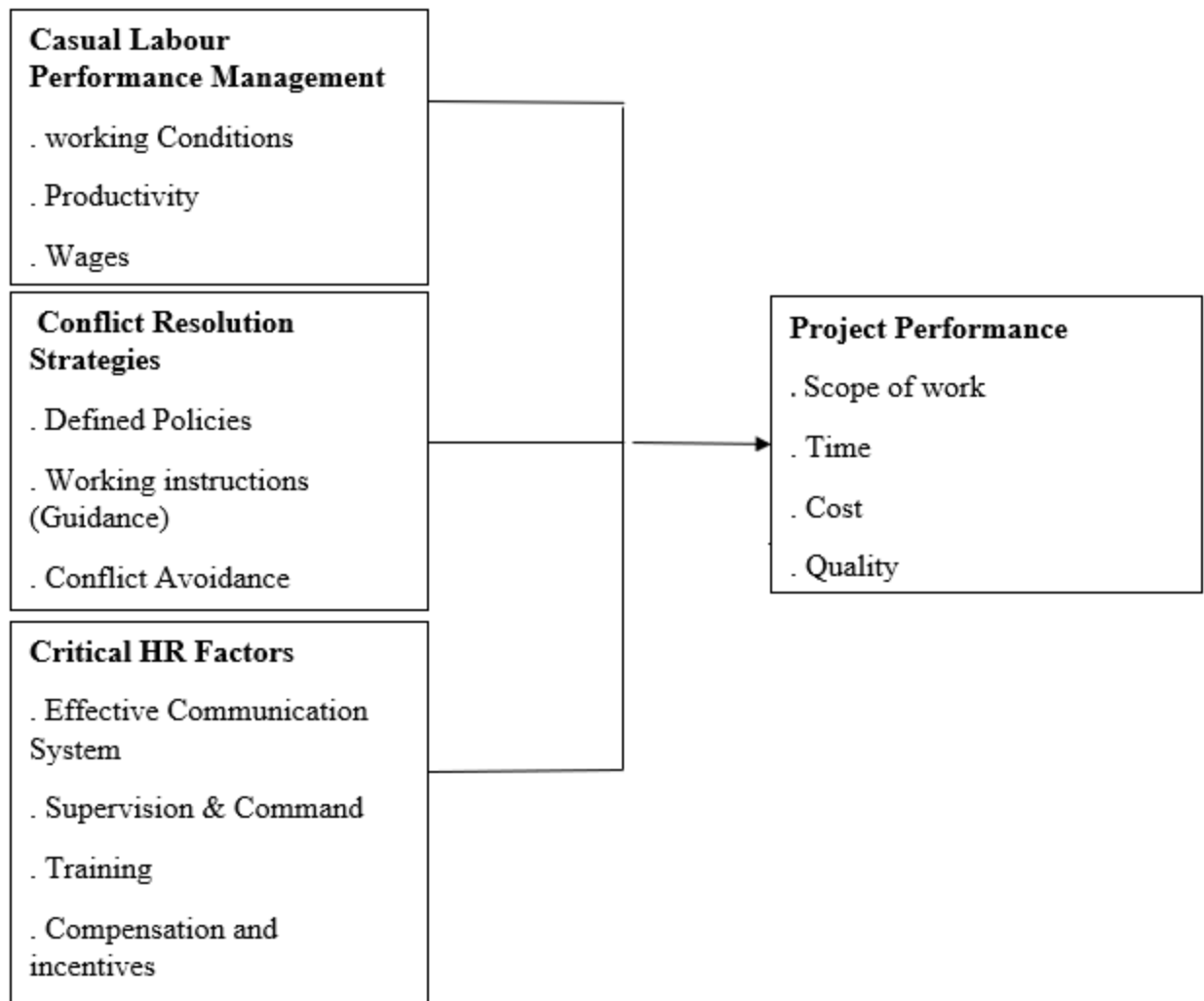


Figure 2 I: Conceptual framework work (Source: Researcher 2022)

MATERIALS AND METHODS

The study entitled “Effect of Casual Labor management on construction projects performance in Rwanda. A case of Resilience Professionals Ltd” was conducted for achieving or assessing three specific objectives: to assess the effect of Casual Labor Performance on the performance of construction projects in Rwanda; to determine the effect of Conflict Resolution Strategies on construction projects performance; to examine the effect of Critical human resource factors on construction projects Performance

To assess the validity of study objectives and the researcher has used both primary and secondary data. Primary data were collected from 107 Staffs from 3 different construction

sites (By using Questionnaires) in which Resilience is executing as a labor subcontractor (Construction of Kicukiro Kagarama-Muyange Road; Remodeling and renovation of Amahoro Stadium and Construction of SP1 Mega Project). To select or these respondents, the researcher has used purposive sampling and data were collected using questionnaire. Data were presented as descriptive and inferential statistics (Bivariate correlation analysis) as the outcomes of SPSS.

DISCUSSION OF RESULTS

CASUAL LABOUR MANAGEMENT ON PERFORMANCE OF CONSTRUCTION

PROJECTS IN RWANDA

Dimensions and Items	N	Mean	Std. Deviation
Casual Labor Management		4.43	0.550
Favorable working conditions for casual labors leads to the successful performance of the project.	107	4.66	.475
The productivity of casual labor has a significant impact on overall project performance.	107	4.38	.488
Project management and Leadership skills has a strong influence on employees' performance	107	4.48	.588
Uniqueness of construction projects (full of surprises and new challenges) influence the failure of Casual Labor Performance that leads to the failure of project performance.	107	4.20	.651
Critical HR Factors		3.88	1.025
The communication deficits among the construction project stakeholders may leads to the failure of project performance.	107	4.10	.764

The project supervision practices influence the success of the construction project.	107	3.82	1.008
Training the casual labors for a particular implementation plan of the project may maximize the employee's performance against the unbudgeted labor wages that leads to the cost overrun and also eradicate mal practices that cause repetitive works that leads to the project delays.	107	3.58	1.206
The employee compensation influences the project performance.	107	4.03	1.120
Conflict Resolution Strategies		3.89	0.914
The Conflicts involved in construction projects have a direct influence on a construction project performance.	107	4.40	.671
There is a need of written practices and policies regulating the casual labor management in particular in order to minimize the conflicts involved in the line of duties.	107	3.45	1.151
Labor wages of construction casual laborers in Rwanda are on low rates regarding to the purchasing power on market which is one of the major causes of demotivation that leads to the repetitive disputes	107	4.15	.775
There are various ways to avoid conflicts alongside the casual labor management in Rwanda	107	3.55	1.057
Project Performance		3.80	1.020
The best practices of Casual Labor Performance management with defined project constraints influence the success of project.	107	3.32	1.241

The Conflict Resolution Strategies may impact directly the project performance.	107	4.25	.837
The human resource practices on casual labor management may influence successfully the project performance.	107	4.08	.754
There is a need of practice and law governing casual labor management to ensure the smooth implementation of construction projects in Rwanda in order to minimize the construction projects that fail due to poor casual labor management.	107	3.53	1.246

Correlation Analysis

Test of correlation was made using Bivariate correlation analysis and linear regression model. Results of bivariate correlation analysis are measured by two parameters such as Pearson correlation (r) and P-value (Sig. (2-tailed)). The researcher has used mean all items assessed as indicators for independent variable with a comparison to the mean of data obtained from indicators assessed for dependent variable. The structuring of the questionnaire in a five-point Likert scale enabled the responses to be computed into composite scores of their means for all the study variables. The composite mean scores for the independent variables were correlated with the composite mean scores for the dependent variable. Pearson correlation coefficient was utilized in examining the relationships.

		Labor Performance Management	Critical Human Resource Factors	Conflict Resolution Strategies	Project Performance
Labor Performance Management	Pearson Correlation	1	.643**	.323**	.712**
	Sig. (2-tailed)		.000	.001	.000
	N	107	107	107	107
Critical Human Resource Factors	Pearson Correlation	.643**	1	.334**	.683**
	Sig. (2-tailed)	.000		.000	.000
	N	107	107	107	107
Conflict Resolution Strategies	Pearson Correlation	.323**	.334**	1	.504**
	Sig. (2-tailed)	.001	.000		.000
	N	107	107	107	107
Project Performance	Pearson Correlation	.712**	.683**	.504**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	107	107	107	107
**. Correlation is significant at the 0.01 level (2-tailed).					

Table 4. 9: Test of correlations and Significance (Source: Primary data 2022)

The results from the table 4.9, revealed that there is high positive significant linear relationship between Casual Labor Performance and Construction Projects Performance in Rwanda at $r = 0.712^{**}$; $p\text{-value} = 0.000 < 0.01$. This means that Casual Labor Performance had a positive impact on Construction Projects Performance in Rwanda. This confirms the results of Kalejaiye (2014) in his study on the rise of casual workers in Nigeria, who loses, who benefits? used content analysis of literature review and found that casual work is not in all cases bad as thought and it also has its accompanying benefits and in some cases is a matter of choice which constitutes the price of progress.

The results from the table 4.9, revealed that there is moderate positive significant linear relationship between Conflict Resolution Strategies and Construction Projects Performance in Rwanda at $r = 0.683^{**}$; $p\text{-value} = 0.000 < 0.01$. This means that Conflict Resolution Strategies had a positive impact on Construction Projects Performance in Rwanda. This confirms the results of

(AAP), 2004) in the study states that Only when project managers are able to understand and link the potential cause with appropriate strategy will they be effective conflict managers. Two realities should be recognized; first that conflict is an absolutely inevitable and predictable social phenomenon, one that will increase in all organizations as they become larger and more complex; secondly, that conflict should not be suppressed, but deliberate efforts should be made towards addressing it (Academic Association Peace works.

The results from the table 4.9, revealed that there is moderate positive significant linear relationship between Critical Human Resource Factors and Construction Projects Performance in Rwanda at $r = 0.504^{**}$; $p\text{-value} = 0.000 < 0.01$. This means that Critical Human Resource Factors had a positive impact on Construction Projects Performance in Rwanda. This confirms the results of the study by Chuang et al., 2010; Clark and Colling (2005); Evidently, both HRM practices and a project team's knowledge ACAP are significantly related to project performance, but the links between these constructs have seldom been tested. Several studies have found that HRM practices in POCs contribute to knowledge integration among project team members and to the identification of possibilities for change (Bredin and Soderlund, 2011; Keegan et al., 2012). For instance, HRM practices can improve the utility of a project team's realized ACAP on outcomes by enhancing project team participation and providing incentives to share best practices and training project related skills (Meng and Gallagher, 2012; Minbaeva et al., 2012).

Multiple Linear Regression Model

Preceding the determination of the factors influencing the Construction Projects Performance, the study sought to assess Effect of Casual Labour Management on Performance of Construction Projects in Rwanda.

This section, therefore, presents and discusses the findings from the respondents' opinions on the management of casual Laborers.

The equation ($y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$ Model) The established regression equation becomes;

$Y = -0.656 + 0.433 X_1 + 0.340 X_2 + 0.245 X_3 + \varepsilon$ Where: Y= Project Performance, X1= Casual Labor Performance, X2= Conflict Resolution Strategies, X3= Critical HR Factors and ε = Error Term

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.806 ^a	.649	.639	1.401
a. Predictors: (Constant), Economic Factors, Labor Performance Management, Critical Human Resource Factors				

Table 4. 10: Regression test (Model Summary) Source: Primary Data 2022

The results in table 4.10 indicates that the R=0.806. This meant that when all the independent variables were taken together, they gave an R-squared value of 0.649 (64.9%). Thus, the independent variables (Conflict Resolution Strategies, Casual Labor Performance and Critical Human Resource Factors) taken together could account for up to 64.9% of the total variation in Construction Projects in Rwanda at 95% of confidence interval. Additionally, this therefore means that 35.1% of Construction Projects performance come from other variables that are not included in Model of this Research.

With this test, it was assumed that the kind of relationship that exists between independent and dependent variables is linear. Objective one sought to assess the effect of Casual Labor Performance on construction projects performance. Regression analysis was conducted and the results are presented in the tables; Findings indicated regression analysis, which is a form of inferential statistics. the p-values help to determine whether the relationships that are observed in the sample also existed in the larger population.

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.656	1.223		-.537	.593
	Labor Performance Management	.410	.073	.433	5.645	.000
	Critical Human Resource Factors	.336	.076	.340	4.425	.000
	Economic Factors	.264	.065	.245	4.034	.000

a. Dependent Variable: Project Performance

Table 4. 12: Regression test (Coefficients) Source: Primary Data 2022

The regression results revealed that Casual Labor Performance has positive and significant correlation on project performance of construction projects Performance in Rwanda. ($\beta = 0.433$, $t = 5.645$ and $p\text{-value} = 0.000$ less than 5%) $y = \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \varepsilon$ Model. Further, Casual Labor Performance has significant positive effect on construction projects Performance in Rwanda as indicated by $\beta = 0.433$, $p\text{-value} = 0.000 < 0.05$, $t = 5.645$. The implication is that an increase of one unit in lead Casual Labor Performance would lead to an increase in construction projects Performance in Rwanda by 0.433 units. The findings confirm recommendation from the study by Oludele (2015) while studying labour casualization and trade unionism in Nigeria adopted a descriptive survey method, and participants were drawn from 120 staffs of Lafarge Wapco Cement, Ewekoro, Ogun state who were selected through triangulation of sampling methods. Data were collected through structured questionnaires and secondary qualitative sources. Findings revealed that labour casualization has weakened volume of trade union members, their financial strength and bargaining power in Nigeria. The study recommended that government should invoke relevant laws that will encourage casual workers to enjoy freedom of association so that they can be protected against exploitation. The scarcity of resource materials and literatures on casualization and its effect on employee performance informed the need for this study.

CONCLUSION & Recommendations

The study assessment was based on the effect casual labor management (Casual labor performance, Critical human resource factors, Conflict Resolution Strategies) on performance of construction (Scope, Time, Cost and Quality). Based on the above findings the following conclusions were made:

Based on the study findings, the study concluded that casual labor management such as Labor performance, Critical human resource factors, Conflict Resolution Strategies contribute to 64.9% changes Construction Projects Performance in Rwanda at 95% confidence of internal. The study concluded that project organization that Casual Labor Management have got higher chances of realizing their Construction Projects Performance. The results indicate that Casual labor performance, Critical human resource factors, Conflict Resolution Strategies have statistically significant effect for a successful construction Project.

The recommendations of this study were derived from the conclusions that all the independent variables significantly influence project performance which was measured by the constraint of time, scope, cost and Quality. A great contribution to be noted by the Construction Project managers is that Lack of or Poor Casual Labor Management practices in all aspects of running a construction project influences project performance. The following were the recommendations of this study.

The study recommends that Construction projects management teams to promote team building; this would influence success of project performance and provide quality service to the customers and meet their expectations. Management of Construction projects need to institute measures to

improve casual labor performance by providing favorable working conditions in order for the casual laborers to be more productive respectively to their wages. Disputes are inevitable in any social organization. However, disputes are detrimental to project health and hence they should be quickly settled before advancing into conflicts. This is more important to Construction projects which hire a big number of people comparing to the other industries' projects. Disputes are inevitable in any social and Business organization. However, disputes are detrimental to project health and hence they should be quickly settled before advancing into conflicts. This is more important to Construction industry which link many stakeholders from a various and different environment with different beliefs and principles. For the success of Construction Projects, the team should handle all its conflicts constructively and respectfully. Team members should treat and support each other honestly, sincerely and with respect.

There is need for project managers to diversity and integrate both intrinsic and extrinsic motivation approaches for holistic satisfaction of the team members. Such a reform would build morale to individual team members and creating a favorable team environment for optimum production. In addition, project team leaders should focus on positive reinforcement rather than punishing the constraints which sometimes may be beyond individual's effort.

There is also need for a formalized structure of rewarding the employees; as such employees will not again have to struggle with the idea of being rewarded less than others with whom they are at the same organizational level. Furthermore, outstanding performance of the employees should be fairly and justly rewarded so that the employees can perform better in seasons to come.

Based on the results from this study, despite the fact that one construction project differs from the other one because of various Aspects such as Stakeholders, season, location etc.... Construction Project managers encouraged to develop Basic organizational based practices to manage the casual laborers practices and values governing the casual laborers in particular and make it an organization culture to achieve the goal of inclusivity which leads to the success of projects and contribute to achieving organizational goals and objectives.

Direction for Future Research

Future researchers may research on other Casual labor management components and this This study looked only at one construction company (Resilience Professionals Ltd) categorized in SMEs located in Rwanda hence generalizing the findings may be challenging given the limited coverage. Future studies should cover many companies among the SMEs as well the big construction companies even in different countries with a relatively large population.

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APPENDICES

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.806 ^a	.649	.639	1.401
a. Predictors: (Constant), Economic Factors, Labor Performance Management, Critical Human Resource Factors				

Table 4. 10: Regression test (Model Summary) Source: Primary Data 2022

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	374.154	3	124.718	63.560	.000 ^a
	Residual	202.107	103	1.962		
	Total	576.262	106			
a. Predictors: (Constant), Economic Factors, Labor Performance Management, Critical Human Resource Factors						
b. Dependent Variable: Project Performance						

Table 4. 11: Regression test (ANOVA) Source: Primary Data 2022

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.656	1.223		-.537	.593
	Labor Performance Management	.410	.073	.433	5.645	.000
	Critical Human Resource Factors	.336	.076	.340	4.425	.000
	Economic Factors	.264	.065	.245	4.034	.000
a. Dependent Variable: Project Performance						

Table 4. 12: Regression test (Coefficients) Source: Primary Data 2022