



DIVERSE ATTRIBUTES OF GENERATION X WORKFORCE AND SERVICE DELIVERY IN SELECTED ROAD MANAGEMENT AGENCIES IN WESTERN REGION OF KENYA

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Abstract:

The road sector in Kenya has continued to attract criticism from its clients over unsatisfactory service delivery, characterized by delayed projects, unclear project timelines, poor records on project duration and limited digitization of services. This study assessed the effect of diverse attributes of the Generation X workforce on service delivery in selected road management agencies in the Western Region of Kenya. The study was anchored on the Theory of Generations and the SERVQUAL model, and adopted a combination of descriptive and explanatory research designs. The unit of analysis was the selected road management agencies in the Western Region of Kenya, namely Kenya National Highways Authority, Kenya Urban Roads Authority and Kenya Rural Roads Authority, while the unit of observation comprised 104 top-level managers, operational managers and site engineers, all of whom were included through a census approach. Primary data were collected using a semi-structured questionnaire anchored on a five-point Likert scale. A pilot study involving ten respondents confirmed the suitability of the instrument; validity was addressed through content, criterion and construct checks, while reliability was tested using Cronbach's alpha against a 0.7 threshold. A response rate of 90.38% was achieved, and diagnostic tests confirmed that the data satisfied the assumptions underlying regression analysis. Descriptive results showed that Generation X attributes strongly support service delivery (aggregate mean = 4.197), with adaptability to change, task orientation and independent yet collaborative work styles rated highest. Correlation analysis revealed a positive and significant relationship between Generation X attributes and service delivery ($r = .541$, $p < .05$), and regression analysis confirmed a positive and significant effect ($\beta = .220$, $p = .017$); the null hypothesis was therefore rejected. The study concluded that Generation X employees' self-reliance, task orientation and adaptability to change enhance road project implementation, adherence to timelines,

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maintenance efficiency and overall road management effectiveness. The study recommends that road management agencies deploy Generation X employees in supervisory and quality-assurance roles, harness their adaptability in managing organizational and technological change, and institutionalize mentorship programs through which Generation X employees transfer skills to younger cohorts.

Keywords: Generation X, multigenerational workforce, service delivery, road management agencies, Kenya

1. Introduction

Service delivery denotes the way an organization structures and executes its mission, strategy and goals for optimum output. In the public sector, it entails the fulfilment of a policy or legal expectation to the public for deliverables, with internal processes triggered towards delivering services in a time-conscious, cost-effective and efficient manner. Service review charters of most public sector entities pursue the SERVQUAL model, which conceptualizes quality service along the dimensions of reliability, responsiveness, assurance, empathy and tangibles (Parasuraman et al., 1988). In the road sector, service delivery is reflected in road quality, adherence to project timelines, maintenance efficiency, accessibility and overall connectivity of the road network.

The road sector in Kenya has not escaped criticism from its clients for unsatisfactory service delivery. The sector has not been able to improve service accessibility to all citizens, while digitization of services to curb fraud, create openness in tendering and enhance the responsibility and accountability of officers appears to be lacking (Oguna, 2018). There are poor records on when road projects begin and end, and the duration projects are supposed to take, and in some instances, projects take too long to be completed, thereby failing to achieve the intended goals (Nyika, 2018; Oloo, 2018; Waithera & Susan, 2020). Empirical attention in the Kenyan road sector has, however, concentrated on project-level constraints such as contractors' financial ability, cost overruns and timeliness (Mushori et al., 2020), leaving the contribution of workforce generational attributes largely unexamined. In Kenya, the mandate of developing, maintaining and managing public roads is vested in road agencies, among them Kenya National Highways Authority (KeNHA), Kenya Urban Roads Authority (KURA) and Kenya Rural Roads Authority (KeRRA), whose performance directly shapes citizens' experience of road infrastructure services (Kenya Roads Board, 2023).

At the same time, contemporary workplace is composed of employees drawn from different generational cohorts, namely Baby Boomers, Generation X, Millennials and Generation Z, each carrying distinct attributes to the workplace (Baysal, 2022; Kicheva, 2017). Generation X, comprising those born between 1965 and 1980, occupies a strategic middle position in the workforce, frequently holding supervisory and managerial responsibilities. The cohort is characterized by self-reliance, task orientation, adaptability to change, preference for flexible work conditions and a strong work-life balance

orientation (Lancaster & Stillman, 2019). Despite the strategic position of Generation X in public agencies, it is not clear how the cohort's diverse attributes affect service delivery in road management agencies in Western Region of Kenya. This study therefore assessed the effect of diverse attributes of Generation X workforce on service delivery in selected road management agencies in Western Region of Kenya, testing the null hypothesis (H₀) that there is no significant effect of Generation X's diverse workforce attributes on service delivery in selected road management agencies in Western Region of Kenya.

2. Literature Review

The study was anchored on Theory of Generations and SERVQUAL model. The Theory of Generations, advanced by Mannheim (1952), posits that individuals born within the same historical and socio-cultural period develop shared consciousness, values and dispositions that distinguish them from other cohorts. The theory explains why Generation X employees, having been socialized during periods of economic restructuring and early diffusion of information technology, exhibit distinct workplace attributes such as self-reliance, pragmatism, task orientation and adaptability. The SERVQUAL model (Parasuraman et al., 1988) conceptualizes service quality as the gap between customers' expectations and their perceptions of the actual service received. In this study, the model guided operationalization of service delivery in road management agencies, expressed through indicators such as road quality, adherence to project timelines, maintenance efficiency, accessibility and road connectivity.

Empirically, Rattanapon, Jorissen, Jones and Ketkaew (2023) investigated how a supportive work environment shapes outcomes for workers in different ages, and Generation X in particular, within small and medium-sized enterprises in Thailand. Employing a structured survey of 400 SME employees across four major provinces, the study examined how dimensions of workplace fit, namely person-job, person - group, person-supervisor, person-organization and overall person-environment fit, together with employees' intentions to leave, bear on organizational outcomes. The findings revealed that these fit variables considerably affect whether employees choose to stay in their jobs, and that these dynamics affect Generation X workers differently compared to other age groups. The study, however, was undertaken in Thailand and focused on SMEs and turnover, presenting contextual and conceptual gaps which the present study addressed.

Matlhaba (2023) explored how generational diversity is perceived to affect the supervision of newly qualified professional nurses in South African public hospitals. Anchored in an interpretivist paradigm and employing a qualitative approach with purposively sampled participants, the study established that elements such as the nature of work, prospects for career advancement, use of employees' skills, work-life balance, remuneration, job security, leadership style and personal motivation are central both to retaining Generation X staff and to strengthening service delivery. The author emphasized that employers, especially within the public sector, need to be intentional

about harnessing competencies of Generation X, more so given prevailing skills shortages. The study differs from the present one methodologically, owing to its qualitative design, and contextually, having been carried out in the South African health sector.

Kicheva (2017) examined management of employees from different generations as a challenge for Bulgarian managers and human resource professionals, establishing that each generational cohort requires different management approaches if organizations are to secure commitment and performance. While these studies affirm the salience of Generation X attributes in organizational outcomes, they were conducted in foreign contexts, relied largely on qualitative or turnover-focused designs, and did not address service delivery in road infrastructure agencies. The present study filled these contextual, conceptual and methodological gaps by quantitatively linking Generation X attributes, operationalized through self-reliance, task orientation, comfort with change and a realistic, critical outlook, to service delivery in road management agencies in the Western Region of Kenya.

3. Material and Methods

The study adopted a combination of descriptive and explanatory research designs. Descriptive component helped in obtaining pertinent and precise information on status of variables, while the explanatory component was applied to establish causal relationship between Generation X workforce attributes and service delivery (Toyon, 2021). The unit of analysis was selected road management agencies in Western Region of Kenya, namely Kenya National Highways Authority, Kenya Urban Roads Authority and Kenya Rural Roads Authority, covering roads provided between January 2022 and January 2026. The unit of observation comprised top-level managers, operational managers and site engineers in the agencies, totaling 104 employees of both sexes. Owing to the small and accessible population, a census approach was adopted, and all 104 respondents were included in the study (Mweshi & Sakyi, 2020).

Primary data was collected using a semi-structured questionnaire anchored on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree), which captured both quantitative ratings and qualitative responses. Generation X attributes were measured through eight items covering self-reliance, task orientation, comfort with change, independent yet collaborative work styles, results focus and a realistic, critical outlook, while service delivery was measured through seven items covering the utilization of workforce diversity, employee participation, timeliness and quality of road infrastructure services. A pilot exercise involving ten respondents was carried out to confirm the instrument was suitable for main data collection. Validity was addressed through content, criterion and construct checks, while reliability was tested using Cronbach's alpha, with all constructs meeting the 0.7 benchmark. Quantitative data were analyzed using descriptive statistics (means and standard deviations) and inferential statistics (Pearson correlation and regression analysis) at a 0.05 level of significance, while

qualitative responses were examined through content analysis and reported in narrative form. Diagnostic tests for normality, linearity, multicollinearity, autocorrelation and heteroscedasticity established that the data satisfied assumptions underlying regression analysis. The effect of Generation X attributes on service delivery was estimated within a regression model of the form $Y = \beta_0 + \beta_i X_i + \varepsilon$, where Y is service delivery, X_i is Generation X workforce attributes, β_0 is the constant, β_i the coefficient and ε the error term. Ethical clearance and research authorization were obtained before data collection, and respondents' informed consent, anonymity and confidentiality were upheld. Abbreviations used in the study include KeNHA (Kenya National Highways Authority), KURA (Kenya Urban Roads Authority), KeRRA (Kenya Rural Roads Authority) and GEN-Xers (Generation X employees).

4. Results and Discussion

A total of 104 questionnaires were distributed to identified respondents, out of which 94 were successfully filled and returned, representing a response rate of 90.38%. A response rate above 50% is regarded as sufficient for analysis and reporting; therefore, the achieved response rate was highly satisfactory and adequate for drawing conclusions from the study.

Table 1: Descriptive statistics on Generation X attributes (n = 94; SD = standard deviation)

Generation X Attributes	Mean	SD
Most Generation X employees in the agencies are self-reliant and prefer taking personal responsibility for tasks, which enhances accountability and service delivery in road projects.	3.4865	0.845
Generation X employees are task-oriented and focus on achieving specific outcomes, ensuring that road projects are completed on time and within set quality standards.	4.5135	0.989
Generation X employees are generally comfortable with change and adapt quickly to new technologies, policies, or procedures, which improves efficiency in road infrastructure management.	4.7297	0.783
Generation X employees sometimes display a pessimistic outlook, which affects their approach to risk-taking and innovation in service delivery.	4.1892	0.654
Generation X employees often prefer working independently but can also collaborate effectively in teams when needed, contributing to timely and efficient project execution.	4.5946	0.821
Generation X employees' focus on results and discipline enables them to consistently meet road project targets and enhance service reliability.	4.3027	0.828
Generation X employees contribute to organizational adaptability by embracing new ways of working, thereby supporting continuous improvement in road service delivery.	4.2162	0.741
Generation X employees' realistic and critical perspectives help identify potential risks in road projects, strengthening compliance and long-term project sustainability.	3.5405	0.897
Aggregate	4.197	0.101

Source: Research data (2026).

Descriptive statistics were computed to profile Generation X attributes as perceived by respondents from the three agencies across the categories of top-level managers, operational managers and site engineers. The results are presented in Table 1.

Table 1 shows that Generation X contributes strongly to service delivery, with an aggregate mean of 4.197 (SD = 0.101). Adaptability to change was the highest-rated attribute (M = 4.7297, SD = 0.783), reflecting the cohort's ability to embrace new technologies and procedures in road infrastructure management. Task orientation (M = 4.5135, SD = 0.989) and independent yet collaborative work styles (M = 4.5946, SD = 0.821) were also highly valued. The attribute of a cautious, pessimistic outlook recorded a comparatively lower but still above-average mean (M = 4.1892, SD = 0.654), suggesting that while Generation X employees can display a skeptical outlook, this perspective contributes to risk awareness and prudent decision-making in project implementation. The lowest-rated attributes were self-reliance (M = 3.4865, SD = 0.845) and the use of critical perspectives to identify risks (M = 3.5405, SD = 0.897), showing greater variability in how the cohort approaches risk-related responsibilities. These findings are consistent with previous studies indicating that Generation X employees exhibit strong responsibility and adaptability within organizational settings (Rattanapon et al., 2023; Matlhaba, 2023).

The dependent variable, service delivery, returned an aggregate mean of 4.141 (SD = 0.895), with respondents agreeing that the effective use, integration and management of generational diversity positively affect the efficiency, quality and timeliness of road infrastructure services. The strongest consensus concerned the presence of formalized avenues through which employees offer input on workforce practices (M = 4.335, SD = 0.904), while the timely completion of road projects scored relatively lower (M = 3.896, SD = 0.901), pointing to inconsistencies in the operationalization of generational diversity across the agencies.

Pearson correlation analysis was conducted to establish the relationship between Generation X attributes and service delivery. The results are presented in Table 2.

Table 2: Correlation between Generation X attributes and service delivery (** significant at the 0.05 level, 2-tailed)

Variable		Service Delivery
Generation X Attributes	Pearson Correlation	.541**
	Sig. (2-tailed)	.000
	N	94

Source: Research data (2026)

Table 2 indicates a positive and significant relationship between Generation X attributes and service delivery ($r = .541$, $p = .000$). This implies that the self-reliance, adaptability to change and task-oriented nature of Generation X employees are critical in driving road project implementation, maintenance efficiency and stakeholder satisfaction.

Regression analysis was conducted to determine the effect of Generation X attributes on service delivery. The coefficient for Generation X attributes was estimated

within the study's overall regression model, which also controlled for the attributes of the other generational cohorts (Baby Boomers, Millennials and Generation Z), the road regulatory framework and organizational internal policies. The model returned $R = .867$ and $R^2 = .752$, meaning the predictors jointly accounted for 75.2% of the variation in service delivery, and the model was statistically significant ($F = 57.12$, $p < .001$). The results for Generation X attributes are presented in Table 3.

Table 3: Regression coefficients (dependent variable: service delivery; B = unstandardized coefficient; β = standardized coefficient). The model controlled for Baby Boomers, Millennials and Generation Z attributes, road regulatory framework and organizational internal policies

Predictor	B	Std. Error	β	t	Sig.
(Constant)	.627	.490		1.280	.207
Generation X Attributes	.231	.166	.220	1.390	.017

Source: Research data (2026).

Table 3 shows that Generation X attributes had a positive and statistically significant effect on service delivery ($B = .231$, $\beta = .220$, $p = .017$). Holding other factors constant, a unit improvement in Generation X workforce attributes is associated with a 0.231 unit improvement in service delivery. Since $p < .05$, the null hypothesis, that there is no significant effect of Generation X's diverse workforce attributes on service delivery in selected road management agencies in the Western Region of Kenya, was rejected. The finding indicates that characteristics such as adaptability, work experience and managerial reliability among Generation X employees enhance service delivery outcomes, with their task-driven approach supporting compliance with contracts and regulations and adherence to timelines. This is consistent with Rattanapon et al. (2023), who established that workplace fit dynamics distinctly shape contribution of Generation X workers, and with Matlhaba (2023), who found that deliberate harnessing of Generation X competencies strengthens service delivery in public institutions. The results likewise reinforce Kicheva (2017), who observed that generationally differentiated management unlocks the performance potential of each cohort.

5. Recommendations

Based on the findings, the study recommends that road management agencies such as Kenya National Highways Authority, Kenya Rural Roads Authority and Kenya Urban Roads Authority strategically leverage unique strengths of Generation X employees to enhance service delivery outcomes. The cohort's task orientation and adaptability should be deliberately utilized in efficient project execution, supervision and quality assurance, while their realistic and critical perspectives should be channeled into risk identification, contract compliance and long-term project sustainability. Agencies should institutionalize regular workforce engagement strategies that recognize generational differences, including mentorship programs in which Generation X employees, alongside Baby Boomers, guide Millennials and Generation Z employees, fostering knowledge

transfer and skills development. Agencies should further adopt continuous strategic workforce planning, with operational managers and site engineers following well-defined timelines and quality standards while top-level managers monitor progress and should invest in capacity-building programs in regulatory compliance, project management and technology utilization. Future research could replicate the study in other regions and public sector agencies, adopt longitudinal designs to track how Generation X attributes the influence, evolves, and examine the moderating role of regulatory framework and the mediating role of organizational internal policies in the relationship between generational attributes and service delivery.

6. Conclusion

The study concluded that diverse attributes of Generation X workforce have a positive and statistically significant effect on service delivery in selected road management agencies in Western Region of Kenya. Generation X employees' self-reliance, task orientation, adaptability to change and cautious optimism were positively associated with efficient project execution and adherence to timelines, while their task-driven approach ensured compliance with contracts and regulations. Descriptive, correlation ($r = .541$, $p < .05$) and regression ($\beta = .220$, $p = .017$) results converged in rejecting the null hypothesis, confirming that Generation X attributes significantly enhance road project implementation, maintenance efficiency, target achievement, connectivity and overall road management effectiveness.

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