

Volkswagen's Localization Strategy: A Case of Rwanda's Automotive Industry and Job Creation

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doi: <https://doi.org/10.37745/bjmas.2022.04904>

Published June 01, 2025

Citation: Irechukwu E.N. (2025) Volkswagen's Localization Strategy: A Case of Rwanda's Automotive Industry and Job Creation, *British Journal of Multidisciplinary and Advanced Studies*, 6(3)31-48, 2025

Abstract: *Volkswagen has effectively leveraged localization strategies across diverse global markets to enhance competitiveness and expand market reach. This paper examines Volkswagen's strategic localization approach, with a particular focus on its impact on Rwanda's automotive industry and job creation. By establishing an assembly plant in Kigali and integrating mobility solutions aligned with Rwanda's economic and sustainability objectives, Volkswagen has played a pivotal role in shaping industrial development. This study employed a cross-sectional quantitative design to assess perceptions of Volkswagen's localization strategy in Rwanda, focusing on its impact on the automotive industry and job creation. Surveys were distributed to 43 managerial-level employees at Volkswagen Mobility Solutions and 100 assembly plant employees to evaluate views on employment effects and localization effectiveness. Descriptive research design was used to systematically analyze responses, highlighting benefits such as job creation and changes in the industry landscape based on participants' perspectives. The findings from 80 respondents show that Volkswagen's localization strategy in Rwanda serves as a model for companies and nations embracing sustainable mobility. Workforce development is a key factor in fostering self-sufficiency and economic progress while enhancing efficiency and competitiveness. While Volkswagen's efforts in employment, skill development, and alignment with national priorities are commendable, challenges related to community engagement and bridging the skills gap present opportunities for further growth. This study highlights the significance of localization in fostering economic growth, skill development, and sustainable transportation solutions.*

Keywords: automotive, job creation, localization, strategy, volkswagen

INTRODUCTION

Global automotive manufacturers employ localization strategies to adapt products, services, and operations to local market preferences, cultural contexts, and regulatory requirements (Porter, 1990). Localization strategy is the adaptation of products and its functional aspects, services, content and communication to the preferences of the local target markets, audiences

and their culture. Localization enhances competitive advantage, strengthens brand reputation, and improves customer engagement. Volkswagen's approach to localization has been evident in various markets, including China, India, Brazil, and several African nations. This paper explores the implications of Volkswagen's localization strategy in Rwanda, focusing on its contributions to industrial development and employment generation.

LITERATURE REVIEW

Localization in Global Markets: Enhancing User Experience, Market Reach, and Business Success

Localization involves the alteration of any aspect of a product or service that is needed for a product to be sold or used in another market (Haron, 2016). Localization allows brands to tailor their messaging, product offerings, and marketing strategies to align with cultural preferences, economic conditions, and regulatory environments in different regions. This approach helps businesses resonate with local consumers, fostering brand loyalty and market success. For example, global automotive companies modify vehicle specifications to meet local driving conditions and fuel efficiency standards. Localization is a strategy of tailoring a product, service, or content to align with the linguistic, cultural, and functional preferences of a specific market. This adaptation encompasses modifications to design, image, format, and cultural references to ensure that the product or service is contextually appropriate and reverberates with local users.

From an economic perspective, localization is cost-efficient. Instead of creating entirely new products or marketing campaigns for each target market, companies can leverage localized content to maximize their resources while maintaining broad accessibility (Garcia, 2018). However, localization also serves as a risk mitigation tool. Poorly adapted service or product can result in miscommunication or cultural missteps, potentially alienating customers and damaging brand reputation (Davis, 2017). The primary objective of localization is to create an in-built and culturally relevant user experience that adheres to the customs, norms, and expectations of a given geographic region, thereby fostering deeper engagement and enhancing customer satisfaction (Pym, 2019; Esselink, 2020).

For a company to remain competitive, strategy selection and determination (Farida & Setiawan, 2022) must be based on market dynamics, innovation, and internal strengths. A successful localization strategy optimizes user experience by considering the unique preferences of the target audience. Adjusting the design, structure, and functionality of a product or service ensures ease of use and accessibility for local consumers (Smith & Jones, 2019). Localization plays a pivotal role in breaking down language barriers and overcoming cultural challenges, allowing businesses to successfully penetrate new markets. By adapting products and services to align with local customs and expectations, companies can broaden their reach and grow their global customer base (Kolah & Karim, 2022).

A well-executed localization strategy enhances the customer experience by ensuring international users find a service culturally relevant and intuitive. Proper localization fosters trust and strengthens relationships with consumers (Chen & Nakamura, 2021). In an increasingly competitive marketplace, businesses must differentiate themselves. Localization

demonstrates a company's commitment to understanding and addressing the specific needs of its customers, offering an advantage over competitors who have not localized their services (Lee, 2020).

Beyond improving market reach, localization builds brand loyalty. When companies tailor their offerings to meet cultural expectations, they show their appreciation for local consumers, which fosters stronger customer retention and encourages brand advocacy (Wang, 2023). Compliance with local regulations is another crucial aspect of localization. Countries have distinct laws regarding product labelling, marketing practices, and data protection, including standards. Adapting business strategies to align with these regulatory requirements helps prevent legal complications and ensures adherence to local policies (Patel, 2021).

Global Localization Strategies of Volkswagen

From a global viewpoint, Volkswagen has implemented localization strategies tailored to the specific needs of diverse markets. In China, Volkswagen established joint ventures with FAW Group and SAIC Motor Corporation, enabling the production of vehicles suited to local consumer preferences and regulatory frameworks (Volkswagen Group, 2021). In India, Volkswagen invested in local manufacturing and developed market-specific models like the Volkswagen Ameo to optimize cost efficiency and supply chain integration (KPMG, 2020). Similarly, in Brazil, the company introduced models such as the Volkswagen Gol, reflecting an emphasis on developing vehicles aligned with local market trends (Volkswagen Brazil, 2019).

Volkswagen has also expanded its footprint in Africa by establishing assembly plants in South Africa, Kenya, Ghana, and Nigeria. In South Africa, where Volkswagen has maintained a presence for over seventy-three years, localization efforts have led to modernized production facilities, workforce training programs, and significant exports. The Kariega plant, for instance, achieved record exports of 131,485 Polos in 2024, reinforcing South Africa's integration into Volkswagen's global supply chain (Volkswagen South Africa, 2024). The company's strategy in South Africa includes tailoring products to meet local preferences, investing in community development, and modernizing production facilities to meet global standards. Beyond innovative expansion while meeting global standards, Volkswagen has significantly invested in training programs to support workforce development and develop local talent in South Africa.

After halting operations for two decades (20 years), Volkswagen reopened its vehicle assembly plant in Nigeria in July 2015 (Volkswagen Group, 2015) marking its return. The facility, located in Lagos, was revived through a partnership with Stallion Group, allowing Volkswagen to resume assembling models such as Amarok, CC, Jetta, and Passat through the localization strategy for competitiveness. Volkswagen also reopened its assembly plant in Kenya in December 2016. The facility, located in Thika, marked Volkswagen's reappearance to Kenya after nearly four decades (40 years). The first locally assembled vehicle was the Polo Vivo, and the plant was expected to serve both Kenya and the wider East African market (Medafrica, 2016). In Ghana, Volkswagen opened a vehicle assembly facility officially in March 2020 (Volkswagen Group, 2020), further increasing its presence through the localization strategy in the African region and making Ghana the fifth Volkswagen assembly location in the region.

The facility, located in Accra, assembles models like Tiguan, Teramont, Passat, Polo, and Amarok.

Volkswagen's Localization Strategy in Rwanda

Volkswagen's localization strategy in Rwanda represents a strategic initiative to strengthen its presence in Sub-Saharan Africa. The company inaugurated its Kigali assembly plant in June 2018 with an initial focus on assembling models such as the Polo, Passat, Tiguan, Amarok, and Teramont (Akhilbey, 2018). The facility, situated in the Special Economic Zone in Gasabo District, has the capacity to assemble up to 5,000 vehicles annually, supporting local manufacturing efforts and reducing dependency on imported vehicles (The Rwandan, 2023). Beyond vehicle assembly, Volkswagen has introduced innovative mobility solutions, including car-sharing services and electric vehicle initiatives. The launch of the e-Golf, Africa's first Volkswagen electric vehicle, reflects Rwanda's commitment to sustainable transportation and aligns with the country's National Strategy for Transformation (NST1 2017-2024), which prioritizes a climate-resilient, low-carbon economy (Automag.rw, 2024).

Economic and Employment Impact

Volkswagen's localization strategy has had a substantial impact on Rwanda's economy. The establishment of the Kigali assembly plant has generated employment opportunities and facilitated skill development in the automotive sector (Volkswagen Group, 2020). By fostering local talent and promoting industrialization, Volkswagen contributes to Rwanda's economic transformation goals. Furthermore, Volkswagen's car-sharing and e-mobility initiatives align with Rwanda's urban development and sustainability agenda. By emphasizing environmentally friendly transportation solutions, the company supports the country's broader vision of achieving an eco-conscious economy while simultaneously addressing challenges related to air pollution and fuel import dependency.

Volkswagen's strategic localization in Rwanda exemplifies how multinational corporations can adapt their operations to emerging markets while fostering economic development. The company's investment in vehicle assembly, workforce training, and sustainable mobility solutions underscores its commitment to Rwanda's industrialization and sustainability objectives. As localization continues to shape the global automotive industry, Volkswagen's approach in Rwanda serves as a model for integrating economic growth with innovative transportation solutions.

Rwanda's Automotive Sector: Trends, Sustainability, and Policy Shifts

Since 2024, Rwanda's automotive industry has undergone rapid evolution, balancing affordability, cost-effectiveness with a strong push for sustainability. While used internal combustion engine (ICE) vehicles remain dominant, electric vehicle (EV) adoption is accelerating, driven by tax exemptions and a policy shift imposing taxes on hybrid vehicles starting July 1, 2025 (Auto24.rw, 2025). Market trends indicate a significant rise in used car imports, doubling EV registrations, and expansion in the aftermarket sector. Despite economic constraints, urban demand and pro-green policies support industry growth. This paper explores Rwanda's automotive landscape, highlighting key market trends, policy developments, and the nation's trajectory toward sustainable mobility.

Rwanda's Automotive Landscape

Rwanda's automotive industry is witnessing a transformative shift as economic and environmental concerns shape consumer preferences. While affordability drives demand for used ICE vehicles, EV adoption is growing rapidly, fuelled by government incentives, infrastructure development, and evolving policy measures (Automag.rw, 2025). The Rwanda Development Board (RDB) and industry players like Ampersand are instrumental in fostering an EV ecosystem, ensuring accessibility through tax incentives and infrastructure investment (Automag.rw, 2025).

Market Trends and Policy Impact

Rwanda's automotive imports reached 20,000 units in 2024, marking a 10–15% increase from the previous year. Durable Toyota Corolla models, priced between \$3,000 and \$5,000, remained a preferred choice due to their reliability on Rwanda's diverse road conditions (Automag.rw, 2025). EV adoption gained momentum, with registrations increasing from 500 to approximately 1,200, facilitated by zero import duties and the installation of 50 charging stations across the country (Automag.rw, 2025). Electric motorcycles, particularly Ampersand's fleet of 2,000 units, played a central role in advancing Rwanda's sustainable mobility agenda (New Times, 2025).

Hybrid vehicles comprised 5% of total imports, with 1,000 units entering the market. However, demand declined following the government's February 2025 announcement of tax hikes on hybrids, signalling a policy shift favouring full EV adoption (Automag.rw, 2025). To further enhance vehicle quality, Rwanda implemented a 15-year age restriction on imports, reinforcing EV incentives and hybrid taxation strategies (Automag.rw, 2025).

Growth Projections and Environmental Impact

The EV sector is projected to expand significantly over the next five years, positioning Rwanda as a leader in sustainable mobility across Africa. Electric car registrations increased from 19 in 2020 to 512 in 2024, while hybrid vehicle registrations surged from 28 in 2021 to 6,660 in 2024 (Ntirenganya, 2025). Of the 7,172 hybrid and electric vehicles imported between 2020 and 2024, only 7% were electric, highlighting the need for continued incentives and infrastructure development (Ntirenganya, 2025). Government-led initiatives, including tax exemptions and investment in charging infrastructure, are expected to accelerate EV adoption. These efforts align with Rwanda's broader sustainability goals, reducing reliance on fossil fuels and improving urban air quality.

Rwanda's automotive sector is undergoing a dynamic transformation, balancing cost-effectiveness with sustainable mobility initiatives. While used ICE vehicles remain prevalent, the rise in EV adoption signals a progressive shift toward eco-friendly transportation. Policy reforms, infrastructure expansion, and industry collaborations will shape Rwanda's automotive future, positioning the nation at the forefront of Africa's green mobility movement.

Key Initiatives of Volkswagen's Localization Strategy in Rwanda

Volkswagen's localization strategy in Rwanda has significantly contributed to the country's automotive industry, job creation, and sustainable mobility. By establishing a local assembly plant, introducing electric vehicles (EVs), launching car-sharing services, and collaborating

with the government on clean energy policies, Volkswagen has positioned Rwanda as a leader in green transportation. This paper examines Volkswagen's key initiatives, their impact on Rwanda's economy, and their alignment with the country's sustainability goals. Localization strategies enable multinational corporations to adapt their operations to local market conditions, fostering economic growth and industry development. Volkswagen's approach in Rwanda exemplifies this strategy, integrating vehicle assembly, electric mobility, and shared transportation solutions to enhance accessibility and sustainability (Automag.rw, 2025).

Assembly Plant Localization Strategy and Job Creation

Volkswagen established an assembly plant in Kigali to produce vehicles locally, reducing import costs and creating employment opportunities for the local workforce (Automag.rw, 2025). The facility supports Rwanda's industrialization efforts by fostering skill development and workforce training programs, contributing to socio-economic growth. Volkswagen's assembly plant in Rwanda initially employed around 100 workers (Tabaro, 2018), with plans to expand to 1,000 employees as operations scaled up (Tabaro, 2018). This facility is part of Volkswagen's broader strategy to strengthen local automotive production and reduce reliance on imported vehicles. Volkswagen's localization strategy has had a significant impact on Rwanda's economy. By establishing an assembly plant in Kigali, Volkswagen has created numerous job opportunities, particularly for the youth. This aligns with Rwanda's goal of creating at least 1.5 million decent and productive jobs by 2024 (NISR, 2020). Localization strategy serves as a catalyst for fostering knowledge exchange, and creating employment opportunities. Investments in technological advancements and workforce skill development empower local talent, reducing dependence on foreign expertise and resources (Keza, 2022).

Volkswagen's investment in training programs has enhanced the skills and knowledge of the local workforce, further supporting socio-economic growth. By establishing assembly facilities and transferring advanced automotive technologies, Volkswagen has not only stimulated local production but also contributed to long-term industrial development. The emphasis on skill-building ensures that Rwanda can sustain and expand its automotive sector without excessive dependence on foreign expertise. This aligns with broader economic goals of reducing reliance on imports and boosting local manufacturing capabilities.

Localization strategies in the automotive sector are essential for companies seeking to expand their footprint in emerging markets. By tailoring production, marketing, and distribution to local conditions, firms can enhance efficiency and consumer engagement (Lee et al., 2021). Volkswagen's approach in Rwanda exemplifies this trend, as the company has leveraged partnerships with local stakeholders to introduce sustainable transportation solutions. The integration of electric mobility aligns with Rwanda's environmental policies, fostering a transition toward greener urban transport (Automag.rw, 2024). The introduction of electric vehicles (EVs) has also contributed to environmental sustainability by reducing air pollution and fuel imports.

Electric Mobility and Sustainability

Volkswagen introduced EVs in Rwanda as part of its commitment to sustainable transportation, aligning with the country's environmental goals and reducing carbon emissions (Volkswagen Newsroom, 2019). The company has supported infrastructure development by installing EV

charging stations, ensuring accessibility for electric vehicle users (Automag.rw, 2025). Additionally, Volkswagen collaborated with the Rwandan government to promote clean energy policies, including tax exemptions on EV imports, reducing reliance on fossil fuels and improving urban air quality (Automag.rw, 2025).

Car-Sharing Services and Urban Mobility

Volkswagen launched Move Rwanda, a car-sharing service in Kigali, providing affordable and convenient transportation options for residents (Automag.rw, 2025). The car-sharing services in Rwanda offered through its “Move Share” platform provides access to a fleet of Volkswagen vehicles, allowing businesses and individuals to book rides conveniently. Move Share includes chauffeur-driven services and on-demand ride-hailing, making transportation more accessible across Kigali. This initiative addresses urban mobility challenges while reducing traffic congestion, and optimizing resource utilization. Move Rwanda integrates electric mobility into its car-sharing model, aligning with Rwanda’s green transportation goals (Volkswagen Newsroom, 2019). The initiative is supported by local stakeholders, including government agencies and mobility startups, fostering collaborative urban development.

Partnerships and Workforce Development

Volkswagen’s partnership with the Rwandan government and private sector has been instrumental in understanding and addressing local needs, ensuring the success of its localization strategy (Automag.rw, 2025). The company invests in training programs for local employees, enhancing their skills and knowledge, thereby supporting workforce development and contributing to Rwanda’s broader economic transformation goals. Workforce development consists of various initiatives and strategies aimed at improving individuals' skills, knowledge, and capabilities to meet the requirements of the labour market (Smith, 2019). This process can take place within an organization or externally and may focus on individuals, groups, or entire industries (McKinsey, 2020).

Effective workforce development relies on active participation from employees, ensuring continuous learning and improvement within their workplace. It encompasses education, training, career counselling, and job placement programs designed to equip individuals with the necessary expertise to secure employment, advance professionally, and drive economic growth and productivity. These efforts often target diverse populations, including youth, adults, veterans, and individuals with disabilities, aiming to cultivate a skilled and adaptable workforce that meets evolving market needs (Smith, 2019).

Through structured workforce development initiatives, foreign firms like Volkswagen contribute to community empowerment by refining local talent, boosting productivity, and increasing economic participation. Volkswagen's investment in training and capacity-building programs not only prepares employees for roles within its operations but also opens doors to broader employment opportunities (Keza, 2022). A well-trained workforce fosters innovation, efficiency, and competitiveness within the local economy.

By prioritizing the recruitment and training of local talent, Volkswagen helps lower unemployment and underemployment, thereby improving living standards and reducing poverty in its host country. Moreover, a skilled workforce enhances Volkswagen’s operational

resilience, minimizing reliance on expatriate labour and mitigating risks associated with external disruptions (Brigham & Ehrhardt, 2016). These factors strengthen Volkswagen's commitment to long-term investment and engagement within Rwanda.

METHODOLOGY

For this study, a cross-sectional design using quantitative approach to view the perception of Volkswagen's localization strategy effect on Rwanda's automotive industry and job creation was employed. Surveys were purposively distributed to a sample of managerial-level employees from Volkswagen Mobility Solutions (43), and employees at Volkswagen's assembly plant (100) in order to assess the perceptions of Volkswagen's localization strategy on Rwanda's automotive industry and job creation. Descriptive research design was used to analyse the perception on Volkswagen's localization efforts systematically, summarizing survey responses elicited from 80 respondents on employment impact and localization effectiveness of Volkswagen on job creation and industry landscape based on perception.

RESULTS

Characteristics of Respondents

Data obtained from respondents shows the characteristics including age, gender and education level as identified the following sections:

Age of Respondents

Different age groups (Figure 1) responded to the effect of Volkswagen's localization strategy on job creation and Rwanda's automotive industry as construed below:

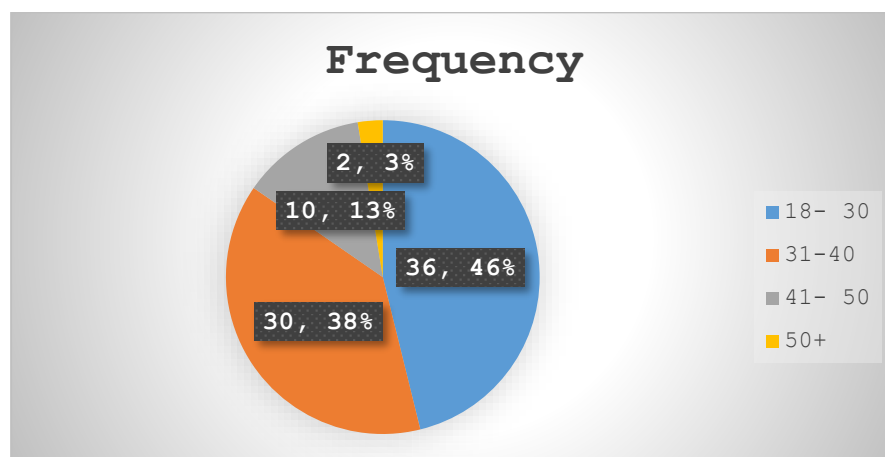


Fig 1: Age of Respondents

Young adults (18-30 years) make up the largest group of respondents at 45%. This suggests that Volkswagen's strategy may have significantly impacted job opportunities for younger

professionals entering the workforce. This age group is often actively seeking employment and skill development, making them likely to engage with new job creation efforts. The 31-40 age group comprises 37.5% of respondents. This indicates strong engagement from mid-career professionals, who might be experiencing job shifts or career advancements within the evolving automotive sector. Respondents aged 41-50 account for 12.5%, reflecting lower participation. This could be due to career stability in other industries or reduced interest in new employment opportunities within Volkswagen's localization strategy. Older respondents (50+) are the least represented at only 5%, suggesting minimal direct impact or engagement in the industry transformation.

Overall, younger individuals appear to be the primary beneficiaries of Volkswagen's localization strategy, potentially due to new job openings and skill development programs catering to emerging talent. This reinforces the role of Volkswagen in shaping Rwanda's automotive workforce, particularly among early-career professionals. Building on this analysis, the dominance of younger respondents (18-30 years) suggests that Volkswagen's localization strategy has had a strong influence on early-career professionals. This is likely due to increased job creation, training initiatives, and skill development opportunities in Rwanda's growing automotive sector. These individuals may be benefiting from entry-level positions, internships, or specialized automotive programs introduced alongside Volkswagen's local investments. For the 31-40 age group, the engagement level remains high at 37.5%, indicating that Volkswagen's presence also resonates with mid-career professionals. This demographic could be transitioning into managerial or technical roles within the industry, leveraging prior experience to enhance production efficiency, innovation, or leadership in localized automotive businesses.

For respondents in the 41-50 range (12.5%), engagement is notably lower. This might suggest that fewer individuals in this bracket are either seeking new job opportunities in the automotive industry or are already established in other sectors. However, some could be involved in Volkswagen's leadership and operational management roles, ensuring the long-term success of the localization strategy. The 50+ group (5%) indicates minimal engagement, which may be due to career stability in non-automotive industries or retirement. While localization efforts often focus on younger talent, older professionals may still be involved in advisory roles, policy-making, or investment-related decisions linked to Volkswagen's strategy.

Gender of Respondents

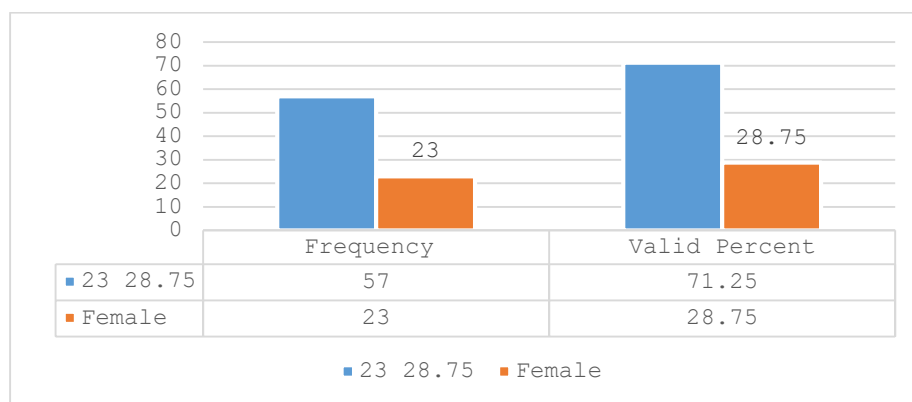
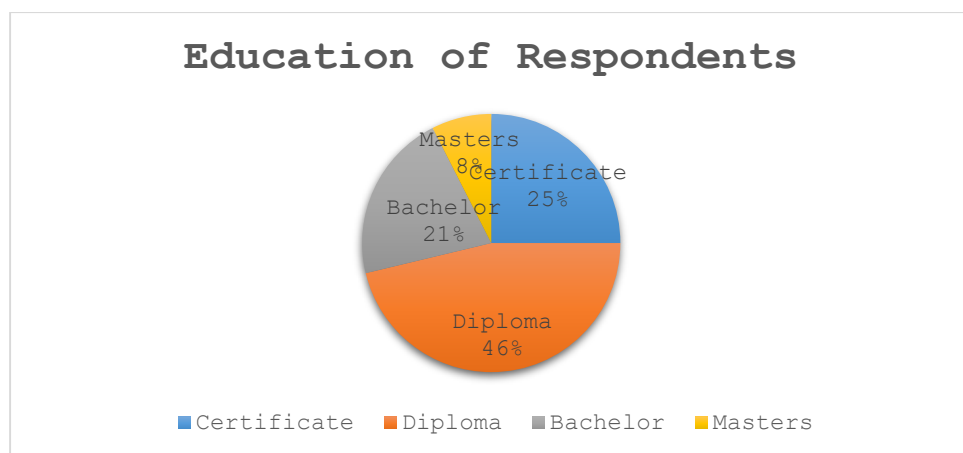


Fig 2: Gender of Respondents

The gender distribution of respondents in Figure 2 shows that males (71.25%) significantly outnumber females (28.75%) in this survey. This could indicate several factors, such as male dominance in the automotive industry, greater male participation in discussions on Volkswagen's localization strategy, or a gender-based difference in employment opportunities within Rwanda's automotive sector. However, the female representation, though lower, still reflects engagement in this area. Volkswagen's localization strategy should inspire initiatives that encourage more female participation in the industry, including training programs and leadership opportunities.

Fig 3: Education of Respondents



Respondents' Education

The data in Figure 3 suggests that the majority of respondents (46.25%) hold a diploma, followed by certificate holders (25%) and bachelor's degree holders (21.25%). The presence of master's degree holders (7.5%) is relatively low. This indicates that Volkswagen's localization strategy and job creation efforts might be most accessible to individuals with diplomas and certificates, which are often linked to technical and vocational skills. These qualifications are essential for hands-on roles in manufacturing, assembly, and automotive services. The lower representation of master's degree holders may suggest that opportunities for highly specialized roles are limited.

Perceptual Responses on Effect of Volkswagen Localization Strategy on Job Creation**Table 1: Perceptual Responses on Effect of Volkswagen Localization Strategy on Job Creation**

Statement	Mean (μ)	Standard Deviation	Description
Volkswagen's investment influenced employment opportunities in Rwanda.	3.597	1.034	Strong
Volkswagen's localization efforts contributed to the development of new skills among the local workforce.	4.402	0.556	Strong
There are changes in the skill levels or job market dynamics resulting from Volkswagen Mobility Solutions' investment.	4.146	0.806	Strong
The Volkswagen's engagement with local communities contributes to boosting livelihoods beyond direct employment.	2.550	1.377	Weak
The introduction of electric cars would contribute to the reduction of pollution, influencing environmental preservation.	3.749	1.378	Strong
Volkswagen plays a role in bridging the skills gap in the local workforce.	2.912	1.260	Neutral
The Volkswagen Mobility Solutions' investment aligns with the development priorities of Rwanda.	3.720	1.394	Strong
Volkswagen's Rwanda contributed to technological advancements in the transport sector of host country	3.622	1.274	Strong
Volkswagen Rwanda improves employment rates as a result of local workforce development.	4.401	0.556	Strong
Overall Average	3.677	1.071	Strong

Source: Primary Data (2024)

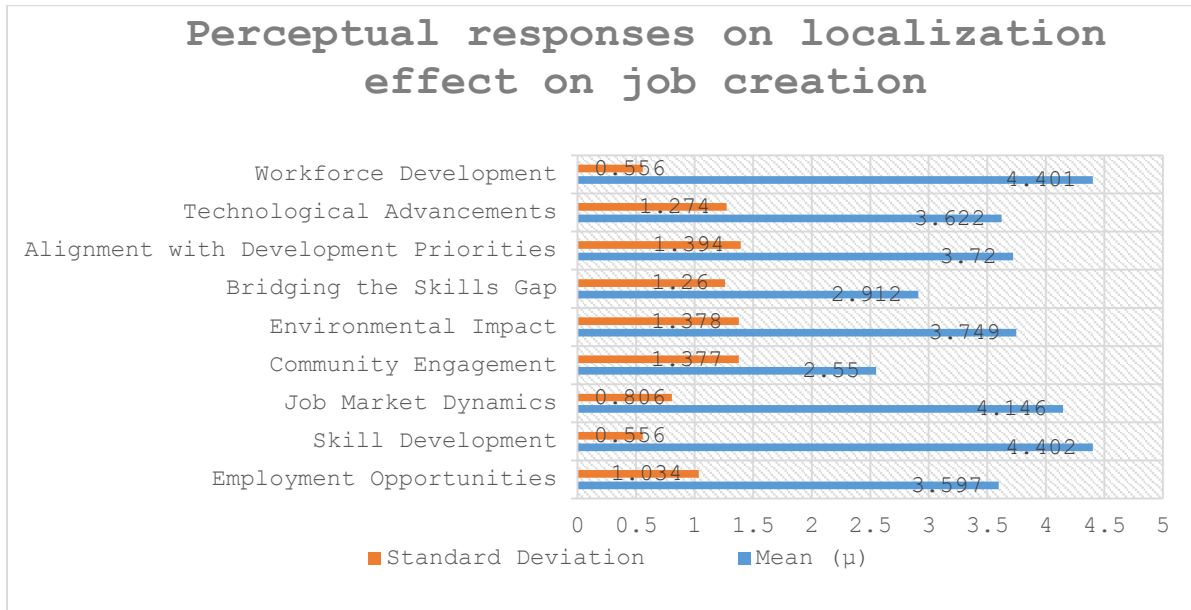


Fig 4: Perceptual Responses on Effect of Volkswagen Localization Strategy on Job Creation
 The survey results in Table 1, Figure 4 provide valuable insights into the perceived impact of Volkswagen's investment and localization efforts in Rwanda. The mean scores and standard deviations indicate the strength of agreement among respondents regarding various statements related to the following nine constructs:

Employment Opportunities

The statement "Volkswagen's investment influenced employment opportunities in Rwanda" received a mean score of 3.597 with a standard deviation of 1.034, categorized as strong. This suggests that respondents generally agree that Volkswagen's presence has positively impacted job creation in the region, reflecting a significant contribution to local employment.

Skill Development

Respondents rated the statement "Volkswagen's localization efforts contributed to the development of new skills among the local workforce" with a mean of 4.402 and a low standard deviation of 0.556, indicating a strong consensus. This high score emphasizes the effectiveness of Volkswagen's training and development programs in enhancing the skills of the local workforce, which is crucial for long-term economic growth.

Job Market Dynamics

The statement regarding changes in skill levels or job market dynamics due to Volkswagen Mobility Solutions' investment received a mean score of 4.146 and a standard deviation of 0.806, also categorized as strong. This indicates that respondents perceive a positive shift in the job market dynamics, likely due to the skills and opportunities introduced by Volkswagen.

Community Engagement

Conversely, the statement "Volkswagen's engagement with local communities contributes to boosting livelihoods beyond direct employment" scored a mean of 2.550 with a standard

deviation of 1.377, categorized as weak. This suggests that respondents feel less confident about the broader community benefits stemming from Volkswagen's engagement, indicating a potential area for improvement in community outreach and support initiatives.

Environmental Impact

The statement regarding the introduction of electric cars contributing to pollution reduction scored 3.749 with a standard deviation of 1.378, categorized as strong. This reflects a positive perception of Volkswagen's environmental initiatives and their potential impact on sustainability in Rwanda.

Bridging the Skills Gap

The statement "Volkswagen plays a role in bridging the skills gap in the local workforce" received a mean score of 2.912 and a standard deviation of 1.260, categorized as neutral. This indicates mixed feelings among respondents about Volkswagen's effectiveness in addressing the skills gap, suggesting that while some see progress, others may feel that more could be done.

Alignment with Development Priorities

The statement "Volkswagen Mobility Solutions' investment aligns with the development priorities of Rwanda" scored 3.720 with a standard deviation of 1.394, categorized as strong. This indicates a general agreement that Volkswagen's initiatives are in line with Rwanda's broader economic goals, reinforcing the company's role in supporting national development.

Technological Advancements

The statement "Volkswagen Rwanda contributed to technological advancements in the transport sector of the host country" received a mean score of 3.622 and a standard deviation of 1.274, categorized as strong. This suggests that respondents recognize Volkswagen's role in fostering technological progress within Rwanda's transport sector.

Workforce Development

The data indicates very strong agreement with the statement that Volkswagen's localization in Rwanda has positively impacted employment rates through workforce development. The mean score of 4.401 suggests that respondents overwhelmingly acknowledge the positive role Volkswagen plays in improving employment. This reinforces the belief that workforce development initiatives significantly contribute to job creation. The standard deviation of 0.556 is relatively low, indicating minimal variation in responses. This suggests a high level of agreement among respondents, meaning that most people share the view that Volkswagen's localization strategy enhances employment opportunities in Rwanda.

Overall Assessment

While there are areas of strong agreement regarding employment, skill development, workforce development and alignment with national priorities, there are also notable concerns regarding community engagement and bridging the skills gap. Addressing these areas could enhance Volkswagen's overall impact and strengthen its relationship with the local community. Overall, Volkswagen's localization strategy in Africa focuses on creating job opportunities, fostering innovation, and promoting sustainable development.

Perceptual Responses on Effects of Volkswagen Localization Strategy on Rwanda's Automotive Industry

The statistical interpretation of the data in Table 2 and Figure 5 highlights strong agreement among respondents regarding Volkswagen's impact on Rwanda's automotive industry and mobility sector.

Table 2: Perceptual Responses on Effects of Volkswagen Localization Strategy on Rwanda's Automotive Industry

Statement	Mean (μ)	Standard Deviation	Interpretation
The Volkswagen's automobile production line impacted the availability of brand-new vehicles in the local market.	3.487	1.529	Strong
Volkswagen local production strategy in collaboration with local stakeholders has reduced dependence on imported vehicles.	3.754	1.322	Strong
Technologies introduced by Volkswagen Mobility Solutions in transport reduced the waiting hours while ordering cabs and impacted on the satisfactory services delivery.	3.303	1.580	Strong
Overall Average	3.514	1.477	Strong

Source: Primary Data (2024)

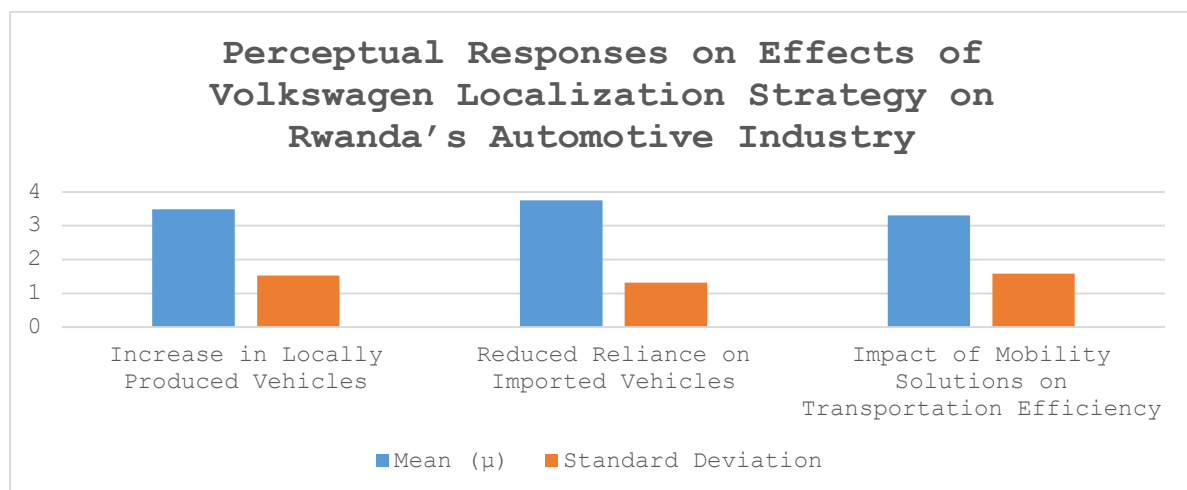


Fig 5: Perceptual Responses on Effect of Volkswagen Localization Strategy on Rwanda's Automotive Industry.

The findings suggest that localization has played a crucial role in improving access to locally produced vehicles, reducing reliance on imports, and enhancing transportation efficiency as outlined under the following paradigms.

Increase in Locally Produced Vehicles:

Volkswagen's automobile production line significantly increased the availability of brand-new vehicles within Rwanda's market, as indicated by a mean score of 3.487 with a standard deviation of 1.529. The relatively high mean suggests strong respondent agreement on Volkswagen's positive role, while the standard deviation indicates some variability in opinions, likely due to differences in individual experiences with vehicle access and affordability. This result further suggests that respondents strongly acknowledge Volkswagen's contribution to improving access to locally produced vehicles. It also suggests that respondents perceive localization as effective in decreasing reliance on imported vehicles.

Reduced Reliance on Imported Vehicles:

The collaborative efforts between Volkswagen and local stakeholders resulted in a mean of 3.754, with a standard deviation of 1.322, demonstrating a relatively high level of consensus among respondents. The lower standard deviation suggests less variability in perspectives, meaning that most respondents recognize localization's effectiveness in reducing Rwanda's dependence on foreign automobile imports. This further supports the idea that establishing local production strengthens Rwanda's automotive self-sufficiency while reinforcing industry growth.

Impact of Mobility Solutions on Transportation Efficiency:

Volkswagen's Mobility Solutions introduced innovations and technologies that enhanced transportation efficiency, service delivery, specifically by reducing wait times for ordering cabs. The mean score of 3.303 reflects overall agreement with the effectiveness of these advancements. However, the standard deviation of 1.580 indicates a relatively broader range of perspectives, suggesting that while the majority of respondents view the technology positively, individual experiences may vary based on factors such as accessibility, usability, or familiarity with the new transportation services.

With a mean score of 3.514 and a standard deviation of 1.477, the findings consistently reflect a strong agreement that Volkswagen's localization strategy positively contributes to industry development, improves vehicle availability and accessibility, local partnerships, as well as enhances mobility solutions for Rwanda's automotive sector. The high mean values across all statements suggest a substantial impact of Volkswagen's initiatives in Rwanda, reinforcing the effectiveness of localization in fostering industrial growth, reducing import dependency, and enhancing mobility services. The standard deviation values indicate slight variations in responses, possibly due to differing levels of familiarity or direct interaction with these initiatives.

Rwanda's 2025 Tax Reforms and Their Impact on the Automotive Industry

The Government of Rwanda in support of the EV has introduced significant tax policy reforms for the fiscal year 2024/2025, aiming to broaden the tax base, promote green mobility, and enhance revenue mobilization. These changes align with Rwanda's Second National Strategy for Transformation (NST2) (Government of Rwanda, 2025) reinforcing its commitment to sustainable development. Key reforms include a progressive excise duty on hybrid vehicles based on age, with rates set at 5% for vehicles under three years old, 10% for those aged 4–7 years, and 15% for those eight years or older. This progressive tax structure incentivizes the

importation of newer hybrid models that are more environmentally friendly and fuel-efficient (Habumugisha, 2025). Additionally, the government has reintroduced a 5% withholding tax on hybrid vehicles starting in 2025/2026. While VAT exemptions will no longer apply to hybrids, they will continue to benefit from a 25% import duty exemption (Government of Rwanda, 2025). On the other hand, Electric vehicles (EVs), retain full VAT and withholding tax exemptions, highlighting Rwanda's focus on zero-emission while emphasizing green transportation strategy. Registration fees for all vehicles will increase to boost road infrastructure funding (Rwanda Revenue Authority, 2025). These tax adjustments are expected to influence consumer preferences, likely encouraging a shift toward electric vehicles due to their favourable tax incentives. Overall, Rwanda's tax reforms reflect a strategic move toward sustainable mobility while addressing economic transformation agenda, enhancing green sustainable environment and investment opportunities within the automotive sector.

CONCLUSION

Local production is a key indicator of economic localization strategies, influencing a country's ability to achieve self-reliance. In Rwanda, Volkswagen and its Mobility Solutions division have actively implemented strategies that have significantly impacted the automotive sector. The establishment of a vehicle assembly facility has contributed to the expansion of the local industry while reducing imports, thereby decreasing Rwanda's dependency on external sources. Strengthening domestic supply chains and enhancing local capabilities enable the nation to better meet market demands, fostering greater self-sufficiency.

Volkswagen Mobility Solutions and its production operations in Rwanda serve as a tangible example of how localization strategy supports both the company and the country. These activities have stimulated job creation and workforce development programs, equipping local employees with critical knowledge and expertise. This study highlights that Volkswagen's commitment to localization has a transformative effect on Rwanda's automotive sector, reducing reliance on imported new vehicles and fostering domestic production.

Practical Implications

By focusing on local manufacturing, technology transfer, and skill development, Volkswagen has played a vital role in the economic evolution of Rwanda's automotive and transport industries. The emergence of a domestic automotive sector not only decreases reliance on imported vehicles but also fosters empowerment and self-sufficiency within the local community. Volkswagen's localization strategy in Rwanda exemplifies how multinational corporations can integrate economic growth with sustainable mobility solutions. By establishing an assembly plant, promoting EV adoption, launching car-sharing services, and collaborating with local stakeholders, Volkswagen has contributed to Rwanda's industrialization and environmental sustainability.

As Rwanda continues to advance its green transportation initiatives, Volkswagen's approach serves as a model for other companies and African nations seeking to embrace localization and sustainable mobility. Local workforce development emerges as a pivotal factor in the success of localization strategies, playing a critical role in fostering self-sufficiency and autonomy in the host country. It has become clear that while, simultaneously contributing to Rwanda's

broader socio-economic progress, focusing on workforce development allows Volkswagen to optimize efficiency and competitiveness. Volkswagen's localization strategic efforts in employment, skill development, and alignment with national priorities in Rwanda are commendable, however, the concerns around community engagement and bridging the skills gap present opportunities for growth. Future researchers should conduct a longitudinal investigation on the Volkswagen localization effects on the production and employment rates using both quantitative and qualitative research designs.

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