STRATEGIC TRAINING AND DEVELOPMENT AND EMPLOYEE PRODUCTIVITY AMONG PAINT COMPANIES IN NAIROBI, KENYA: A CASE OF BASCO PRODUCTS (K) LTD

BY

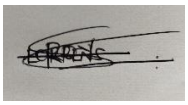
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A PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTERS OF BUSINESS ADMINISTRATION DEGREE IN THE SCHOOL OF BUSINESS OF AFRICA NAZARENE UNIVERSITY

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DECLARATION

I, the undersigned, hereby declare that this work is my own original creation and has not been submitted to any other institution or university for academic credit.

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DEDICATION

This work is dedicated to my family. To my dad, for his unwavering support, constant follow-ups, and encouragement throughout this journey. To my mum and siblings, for their love, understanding, and patience. Your belief in me has been a constant source of strength.

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TABLE OF CONTENTS

DECLARATION.....**ii**

DEDICATION.....**iii**

ACKNOWLEDGMENT.....**iv**

TABLE OF CONTENTS.....**v**

LIST OF FIGURES.....**vi**

LIST OF TABLES.....**vii**

OPERATIONAL DEFINITIONS OF TERMS.....**viii**

ABBREVIATIONS.....**ix**

ABSTRACT.....**x**

CHAPTER ONE:.....**1**

INTRODUCTION.....**1**

1.1 Introduction.....1

1.2 Background of the Study.....1

1.2.1 Strategic Training and Development.....4

1.2.3 Strategic Training and Development and Employee Productivity.....13

1.2.4 Paint Companies in Nairobi.....14

1.2.5 Basco Products (K) Ltd.....15

1.3 Statement of the Problem.....16

1.4.1 General Objective.....18

1.4.2 Specific Objectives.....18

1.5 Research Questions.....18

1.6 Significance of the Study.....19

1.7 Scope of the Study.....20

1.8 Limitations of the Study....21
1.9 Delimitations of the Study....21
1.10 Assumptions of the Study....22
1.11 Theoretical Review....23
1.11.1 Human Capital Theory....23
1.11.2 Socialization Theory....24
1.11.3 Resource-Based View....25
1.11.4 Goal-Setting Theory....26
1.12 Conceptual Framework....27
CHAPTER TWO....29
LITERATURE REVIEW....29
2.1 Introduction....29
2.2 Empirical Review....29
2.2.1 Continuous Learning and Employee Productivity....30
2.2.2 Onboarding Programs and Employee Productivity....33
2.2.3 Skills Training and Employee Productivity....37
2.2.4 Strategic Training and Development and Employee Productivity....40
2.3 Summary and Research Gap....44
CHAPTER THREE:....51
RESEARCH METHODOLOGY....51
3.1 Introduction....51
3.2 Research Design....51
3.3 Research Site....52
3.4 Target Population....52
3.5 Sampling and Sampling Procedure....53
3.5.1 Sampling Procedure....53

3.6 Data Collection 55
3.6.1 Data Collection Instruments 56
3.6.2 Pilot Testing of Research Instruments 56
3.6.3 Reliability of Instrument 57
3.6.4 Validity of Instrument 58
3.6.5 Data Collection Procedure 58
3.7 Data Analysis and Presentation 58
3.7.2 Diagnostic Tests 60
3.8 Legal and Ethical Considerations 62
CHAPTER FOUR: 64
RESULTS AND DISCUSSION 64
4.1 Introduction 64
4.2 Demographic Characteristics of Respondents 64
4.2.1 Gender of Respondents 65
4.2.2 Age of Respondents 65
4.2.3 Department of Respondents 66
4.2.4 Job Position of Respondents 67
4.2.5 Years of Service at Basco Products 67
4.2.6 Summary of Demographics 68
4.3 Descriptive Statistics 68
4.3.1 Reliability of Research Instrument 70
4.4 Correlation Analysis 71
4.5 Diagnostic Tests 73
4.5.1 Linearity and Residual Plots 74
4.5.2 Normality of Residuals 75
4.5.3 Multicollinearity 76

4.5.4 Homoscedasticity 77
4.5.5 Summary of Diagnostic Tests 78
4.6 Model Fit Test 78
4.7 ANOVA 80
4.8 Multiple Regression Analysis 81
4.9 Addressing the Research Questions 84
4.9.1 Research Question 1: To what extent does continuous learning affect employee productivity among paint companies in Nairobi? 84
4.9.2 Research Question 2: To what extent do onboarding programs affect employee productivity among paint companies in Nairobi? 85
4.9.3 Research Question 3: To what extent does skills training affect employee productivity among paint companies in Nairobi? 85
CHAPTER FIVE: 87
SUMMARY, CONCLUSION AND RECOMMENDATIONS 87
5.1 Introduction 87
5.2 Discussion of Findings 87
5.3 Summary of Key Findings 89
5.4 Conclusion 91
5.5 Recommendations 92
5.6 Contribution to Knowledge 94
5.6.1 Academic Contribution 95
5.6.2 Theoretical Contribution 95
5.6.3 Practical/Managerial Contribution 96
5.6.4 Policy Contribution 96
5.6.5 Methodological Contribution 96
5.7 Areas for Further Research 97
REFERENCES 99

APPENDICES 111

Appendix 1: Questionnaire 111

Appendix 2: Nacosti Letter 113

Appendix 3: Research Authorization Letter 114

Appendix 4: Map of the Study Area 115

LIST OF FIGURES

Figure 1 Conceptual Framework 28

Figure 2: Residual diagnostic plot panel..... 75

Figure 3: Normality of residuals..... 76

Figure 4: Breusch Pagan test..... 77

LIST OF TABLES

Table 1: Key Research Summary Gaps Table 47

Table 2: Sample Size Determination 55

Table 3: Gender of Respondents 65

Table 4: Age of Respondents 65

Table 5: Department of Respondents 66

Table 6: Job Position of Respondents 67

Table 7: Years of Service at Basco Products 67

Table 8: Descriptive Statistics of Study Variables (n = 130) 68

Table 9:Cronbach's Alpha Reliability Summary 71

Table 10: Pearson Correlation Matrix 72

Table 11: VIF values 76

Table 12: Summary of Diagnostic Tests table 78

Table 13: Model Fit Summary 78

Table 14: ANOVA Results: Effect of Training and Development on Employee Productivity 80

Table 15: Regression Coefficients Summary 81

OPERATIONAL DEFINITIONS OF TERMS

Continuous Learning: The ongoing process of acquiring new knowledge and skills to improve job performance and adaptability in the workplace.

Employee Productivity: The efficiency with which employees' complete tasks and contribute to achieving organizational goals.

Onboarding: The process of integrating new employees into an organization by familiarizing them with company policies, culture, and job expectations.

Skills Training: Job-specific instruction aimed at improving employees' technical or soft skills to enhance productivity.

Strategic Training & Development: A planned approach to employee training that aligns with the organization's long-term goals and workforce needs.

Training and Development (T&D): A structured process that enhances employees' skills, knowledge, and competencies to improve job performance and organizational efficiency.

ABBREVIATIONS

AI: Artificial Intelligence

CPL: Continuous Professional Learning

HR: Human Resources

RBV: Resource-Based View

T&D: Training and Development

ABSTRACT

The strategic role of training and development (T&D) in enhancing employee productivity has gained prominence within Kenya's manufacturing sector. This study investigated the effect of strategic T&D, specifically continuous learning, onboarding programs, and skills training, on employee productivity at Basco Products (K) Ltd., a leading paint manufacturer in Nairobi. The research was guided by three objectives: to examine the effect of continuous learning on employee productivity, to assess the influence of onboarding programs on employee productivity, and to evaluate the impact of skills training on employee productivity. Anchored in Human Capital Theory and the Resource-Based View (RBV), the study employed a quantitative approach with a descriptive research design. Data were collected from 130 employees using structured questionnaires and analyzed through R software using descriptive statistics, Pearson correlation, and multiple regression analysis. Diagnostic tests confirmed the model's validity, with no violations of normality, linearity, multicollinearity, or homoscedasticity. Findings revealed that continuous learning, though the least implemented ($M = 2.74$), had a statistically significant positive effect on productivity ($\beta = 0.1942$, $p = 0.0015$), indicating that even modest investments in ongoing development can yield measurable improvements. Onboarding programs were rated moderately effective ($M = 3.15$) and had a stronger effect on productivity ($\beta = 0.3797$, $p < 0.001$), emphasizing the importance of structured induction and role clarity. Skills training was rated highest in implementation ($M = 4.31$) and emerged as the most influential predictor of productivity ($\beta = 0.5990$, $p < 0.001$), underscoring its critical role in enhancing technical competence and performance. The model explained 59.3% of the variance in productivity ($R^2 = 0.593$), confirming the substantial impact of T&D on employee outcomes. The study concludes that while T&D practices at Basco are positively perceived, continuous learning remains underutilized compared to onboarding and skills training. To maximize productivity, the company should institutionalize continuous learning, refine onboarding programs, and align skills training with evolving market demands.

CHAPTER ONE:

INTRODUCTION

1.1 Introduction

This chapter presents the foundational elements of the study by introducing the research topic, outlining its scope, and establishing its academic and practical relevance. The chapter begins with the background of the study, highlighting global, regional, and local trends in training and development and their influence on employee productivity. It also provides an overview of strategic training and development (T&D) practices, with a focus on the paint manufacturing industry in Nairobi, specifically Basco Products (K) Ltd. The problem statement defines the core issue the study seeks to address, while the general and specific objectives guide the direction of the research. The section on research questions outlines the inquiries the study will seek to answer. This chapter further discusses the significance, scope, limitations, delimitations, and assumptions underpinning the research. The theoretical framework is also presented, grounding the study in relevant theories such as Human Capital Theory, Socialization Theory, the Resource-Based View, and Goal-Setting Theory. Collectively, this chapter sets the stage for the research by clearly articulating its motivation, purpose, and academic grounding.

1.2 Background of the Study

Employee productivity is the efficiency with which workers convert inputs into outputs and it is a critical determinant of organizational success and economic growth (Stryker, 2024). It is commonly measured through key performance indicators (KPIs) such as output per worker,

revenue per employee, and efficiency ratios. In the manufacturing sector, productivity is influenced by several factors, including technological advancements, workforce skills, management practices, and operational efficiency (Susilo, 2021). Strategic training programs are key in addressing skill gaps and improving employee performance, ultimately enhancing overall productivity.

In the United Kingdom, manufacturing output declined in the first quarter of 2025, a downturn not seen since 2016, due to global trade tensions and increased business taxes (Khan, 2025). Similarly, in Australia, the construction sector faces rising costs due to labour shortages, declining productivity, and a weak national currency, despite some stabilization in material costs (Peters, 2025). The integration of automation and AI has significantly impacted employee productivity, especially in manufacturing. Companies like Xiaomi in China have pioneered the use of "dark factories", fully automated, AI-driven facilities operating 24/7 without human intervention. These factories can produce one smartphone per second, significantly boosting productivity while reducing human labour (Blaire, 2025). However, this shift to automation also brings challenges, particularly concerning employment. The World Economic Forum’s Future of Jobs Report predicts in 2025, 23% of jobs worldwide will be affected by AI, raising concerns about job displacement (Blaire, 2025). Similarly, in Bangladesh, a 15% increase in productivity due to automation in the textile and apparel industries could result in the loss of approximately 688,000 jobs (Rahman, 2024). These examples underscore the double-edged impact of automation, while it enhances productivity, it also requires careful consideration of workforce reskilling and potential job losses.

In Africa, manufacturing productivity is influenced by several factors, including technological adoption, workforce skills, and management practices. While the continent is gradually adopting automation to boost productivity, this transition comes with significant challenges, such as job displacement and the urgent need for workforce reskilling (Susilo, 2021). A study on African manufacturing enterprises found that factors like labour shortages, access to technical equipment, and structured wage labour positively impact productivity growth (Musyoka, Ikua, & Mbuya, 2018). However, the full potential of these gains can only be realized if training programs are integrated to equip employees with the necessary skills for new technologies.

The East African region has seen a significant shift towards improving manufacturing productivity. Countries like Kenya and Rwanda have recognized the importance of enhancing workforce skills to keep up with the demands of industrial growth. Kenya's paint manufacturing industry is growing rapidly, driven largely by the boom in the construction sector. The industry has been growing at an annual rate of 10-15% (Kenya Association of Manufacturers [KAM], 2018), which necessitates a focus on training to meet rising labour demand. Companies like Chemsols Limited have experienced growth, expanding from a single employee to a workforce of 30 over a decade, reflecting both sector growth and the increasing importance of skilled labour (Mwazighe, 2021)

However, in Kenya, a 2024 survey revealed that 80% of workers are disengaged, performing only the bare minimum in their roles (Lawi, 2024). This disengagement can have a significant negative impact on productivity. Targeted training and development programs become critical in fostering a more engaged and productive workforce. When employees have opportunities for continuous learning and skill development, it can improve their job satisfaction, commitment, and overall performance.

Despite the growth in Kenya's paint industry, there are several challenges that hinder optimal productivity. These include safety concerns, a lack of structured training programs, and low employee engagement. Research suggests that implementing well-organized KPIs for both workforce development and manufacturing safety could significantly improve productivity (Musyoka, Ikua, & Mbuya, 2018). However, the absence of structured, consistent training programs remains a critical gap that must be addressed in order to drive sustained productivity improvements. Moreover, sustainability has become a key issue in Kenya's manufacturing landscape, with companies increasingly shifting to eco-friendly production methods to meet customer demand and regulatory standards (KAM, 2023). This trend presents an opportunity to integrate training programs that focus on sustainability practices, which could enhance productivity, boost employee morale, and attract a workforce interested in contributing to more environmentally responsible practices. As Kenya's paint manufacturing sector continues to grow, strategic investments in employee training will be crucial. These investments will not only help address existing challenges but also enhance productivity and drive the industry toward greater efficiency and innovation.

1.2.1 Strategic Training and Development

Strategic Training and Development (T&D) is the intentional process of aligning workforce training initiatives with an organization's long-term objectives to enhance employee capabilities, productivity, and overall business performance (Perkins & Robinson, 2025). Unlike traditional training, which often focuses on short-term skill enhancement, strategic T&D integrates learning into broader business strategies, ensuring that employees acquire competencies necessary for

sustained organizational growth (Gallup, 2023). Globally, companies that embed strategic training into their corporate frameworks experience higher workforce adaptability, innovation, and competitiveness, particularly in industries with rapidly developing market demands such as manufacturing, technology, and finance (Deloitte, 2023).

Despite the benefits of strategic T&D, many organizations fail to implement it effectively. Research indicates that most companies still approach training as an operational necessity rather than a long-term investment, leading to fragmented learning efforts that do not translate into measurable productivity gains (Carpen, 2022). In high-performing economies such as the United States and Germany, manufacturing firms emphasize structured learning frameworks that include continuous employee reskilling, competency-based training, and digital learning tools, which have significantly improved efficiency and retention (AfDB, 2022). In contrast, many African industries, including those in Kenya, struggle with inconsistent training structures, limited investment in workforce development, and misalignment between training programs and industry needs (KAM, 2022).

The paint manufacturing sector, both globally and in Kenya, faces unique challenges in aligning training with productivity goals. Many companies focus on compliance-based training, addressing only regulatory and operational requirements rather than developing employees' technical expertise, leadership skills, and innovation capabilities (Mutinda, 2021). Studies on Kenyan manufacturing firms highlight that limited access to structured workforce training programs has led to skill gaps, reduced efficiency, and high employee turnover (KAM, 2022). Furthermore, firms that do not integrate training with strategic business objectives often experience lower operational efficiency and reduced competitiveness in the global market (Coatings World, 2022).

At Basco Products (K) Ltd., training programs are predominantly reactive rather than proactive, conducted only when operational issues arise rather than as part of a structured workforce development plan (Waithaka 2016). Waithaka found that limited investment in staff training at Basco has resulted in workforce skill gaps, negatively affecting sales revenue, operational efficiency, and overall productivity. Addressing these training gaps requires a strategic approach that incorporates continuous learning, structured onboarding, and targeted skills training to ensure employees are equipped with the necessary competencies to drive business success.

1.2.1.1 Continuous Learning

Continuous learning is essential for both professional and personal development. Research indicates that companies with well-integrated continuous learning programs achieve up to 218% higher income per employee than those without structured training initiatives (Devlin Peck, 2023). Additionally, organizations that prioritize learning and development report a 20% increase in sales and a 21% increase in profitability compared to those that do not (Gallup, 2023). The integration of digital learning platforms and real-time skill-building initiatives plays a crucial role in addressing skill gaps, increasing productivity, and driving innovation (Wheeler, 2019). Continuous Professional Learning (CPL) enables employees to stay updated on industry trends, technological shifts, and evolving job requirements (Karim, 2024). However, bureaucratic structures and a lack of institutional flexibility often hinder effective learning integration, limiting the potential benefits of continuous education (Eriksson & Lycke, 2025).

In Africa, the adoption of continuous learning varies across sectors, with companies that embrace structured learning models reporting higher levels of engagement and innovation, while others struggle with infrastructural constraints. In East Africa, the paint manufacturing sector has

recognized the importance of continuous learning. For example, Crown Paints Kenya PLC has implemented a business coaching and mentorship program to enhance workforce capabilities, reflecting a growing industry focus on structured learning initiatives (Soko Directory Team, 2024). Despite these advancements, many Kenyan manufacturing firms still lack comprehensive training programs, resulting in skill gaps and reduced efficiency (Kenya Association of Manufacturers [KAM], 2022). At Basco Products (K) Ltd., the absence of a structured continuous learning framework has led to a reactive training approach, where employees receive skill development only when operational needs arise rather than as part of a strategic, long-term learning initiative. This misalignment limits employee adaptability and hinders overall company performance (Waithaka, 2016).

To foster a culture of continuous learning, organizations should integrate Learning Management Systems (LMS), encourage self-directed learning, and offer diverse learning opportunities such as online courses, workshops, and certifications (Maple LMS, 2023). By implementing these strategies, companies can enhance workforce productivity, boost employee engagement, and maintain a competitive edge in the market (Crown Paints, 2024). Addressing these gaps through structured continuous learning programs will be crucial for Basco Products to sustain its competitive advantage in Nairobi's paint manufacturing industry.

In this study, continuous learning will be operationalized through four main indicators. The first is the frequency of training sessions attended, which reflects how often employees engage in formal learning interventions. Regular participation in training helps reinforce knowledge, promotes professional growth, and strengthens workplace competencies. Second, access to learning resources such as digital platforms, job aids, and internal knowledge hubs will be

considered. When employees have consistent access to updated learning materials, they are better equipped to address real-time challenges and adapt to emerging trends. Third, the study will examine the relevance of training content to employees' job roles. Learning that is directly applicable to daily responsibilities tends to yield higher levels of engagement and improved performance outcomes. Lastly, motivation to engage in self-learning will be assessed to understand the internal drive among employees to seek knowledge independently. High motivation levels are indicative of a learning culture that fosters innovation, initiative, and proactive skill development.

1.2.1.2 Onboarding Programs

Globally, onboarding has transitioned from a basic orientation process to a strategic initiative aimed at enhancing employee integration, engagement, and productivity. Companies that implement structured onboarding programs, comprising pre-boarding, role-specific training, and continuous follow-ups, report higher retention rates and job satisfaction compared to those with unstructured processes (Rani et al., 2024; Strack et al., 2012). In developed economies like the United States and Germany, AI-driven onboarding solutions and mentorship programs have been widely adopted, offering personalized experiences that accelerate learning and integration. Conversely, emerging economies continue to struggle with inconsistent onboarding practices, leading to higher employee turnover, low engagement, and delayed productivity (Parker, 2024).

In the African context, many organizations still rely on informal onboarding structures that often fail to provide employees with sector-specific skills and organizational alignment. Studies conducted in South Africa and Nigeria show that structured onboarding frameworks can reduce employee attrition by more than 30%, underscoring the importance of formalized and competency-based onboarding models (Harpelund & Onboarding Group, 2019). In East Africa, onboarding is

gradually gaining recognition in industries such as banking and telecommunications; however, the manufacturing sector continues to lag behind. Firms in this sector often focus narrowly on administrative processes, such as signing contracts and reviewing compliance policies, while neglecting essential elements like technical training, job familiarization, and mentoring. This gap leads to extended adjustment periods, reduced employee confidence, and lower levels of early productivity (SAP SE, 2019).

In Kenya's paint manufacturing industry, structured onboarding is particularly crucial due to the technical nature of the work and the necessity for compliance with safety and quality protocols. For example, onboarding programs should familiarize new employees with product formulations, machine operations, and the regulatory standards governing paint manufacturing. At Basco Products (K) Ltd., the absence of a robust onboarding framework has contributed to inefficiencies in job alignment, inconsistent performance standards, and prolonged periods of employee adaptation. This reactive approach undermines employee engagement and inhibits the formation of a cohesive, high-performing workforce.

To address these challenges, onboarding in this study is conceptualized through four primary indicators. The first is the duration and quality of the onboarding process, which assesses whether the onboarding program is comprehensive and sustained over a sufficient period to build competence. A well-structured onboarding timeline enables employees to absorb essential knowledge and gradually assume full responsibilities. The second indicator is satisfaction with the onboarding experience, which reflects employees' perceived value and confidence gained through the process. High satisfaction often correlates with improved morale, commitment, and job performance. Third, the study will examine clarity of roles and expectations as a result of

onboarding. When employees clearly understand what is expected of them, it reduces ambiguity and accelerates task efficiency. Finally, availability of mentorship or support systems will be evaluated. Access to experienced colleagues or supervisors during the initial months significantly enhances new employees' adjustment and problem-solving abilities.

1.2.1.3 Skills Training

Skills training has long been a cornerstone of human development, evolving from informal apprenticeship models to structured vocational education and modern, competency-based learning. In today's dynamic work environment, Technical and Vocational Education and Training (TVET) plays a critical role in equipping individuals with the technical, operational, and soft skills necessary to thrive in the workforce. This importance is especially evident as industries contend with rapid technological disruptions, shifting consumer demands, and increased global competition (Technical and Vocational Education and Training, 2024). In the paint manufacturing industry, where operational efficiency, precision, and regulatory compliance are essential, ongoing skills training enables employees to stay current with process innovations, safety standards, and quality expectations.

Research shows that companies that consistently invest in high-quality, job-specific training programs experience enhanced workforce capabilities, increased productivity, and better alignment with organizational objectives (Singh & Hassan, 2024). These programs often include targeted training modules in machine handling, product formulation, workplace safety, and customer service, all of which are necessary for sustaining competitive performance. However, at Basco Products (K) Ltd., skills training has largely remained reactive, triggered only by immediate operational challenges, rather than forming part of a strategic, future-oriented talent development

plan. This approach results in limited employee preparedness, skill stagnation, and inefficiencies in task execution that compromise both product quality and productivity.

To effectively analyze the role of skills training in this study, four key indicators have been identified. First is the frequency of job-specific training, which assesses how often employees are engaged in technical or soft skills development related to their roles. Regular training ensures that employees remain updated on best practices and evolving standards. The second indicator is improvement in task performance, which measures whether training has led to measurable gains in efficiency, accuracy, or output in employees' day-to-day functions. Third, the study will examine the application of newly acquired skills on the job, reflecting how well employees are able to translate learning into practice. This is crucial for determining training effectiveness and organizational return on investment. Lastly, the relevance of training content to daily responsibilities will be evaluated to ensure that the skills imparted align directly with employees' roles and operational goals.

1.2.2 Employee Productivity

Employee productivity refers to the efficiency and effectiveness with which employees contribute to the achievement of organizational objectives, often measured by the output generated relative to the resources used, such as time, effort, and materials (Stryker, 2024). In the modern workplace, this concept has evolved beyond traditional metrics like hours worked or units produced, encompassing a broader set of qualitative and quantitative indicators. Organizations are increasingly leveraging data-driven approaches, digital tools, and artificial intelligence (AI) to monitor and enhance productivity across diverse work settings. Remote and hybrid work models

have further prompted businesses to adopt flexible structures and integrate employee well-being, mental health support, and continuous learning programs to sustain consistent performance levels (Kassa & Worku, 2025). Studies by McKinsey & Company (2023) reveal that companies which prioritize employee engagement, professional growth, and health-centric environments tend to report higher levels of productivity and lower turnover rates.

While automation and AI have streamlined workflows in many sectors by handling repetitive and administrative tasks, their full productivity impact depends on the workforce's ability to adapt to new technologies, underscoring the importance of structured training programs (Deloitte, 2024). However, in labor-intensive industries like paint manufacturing, productivity gains are often more dependent on human skills, process optimization, and quality assurance than on automation alone. According to the International Labour Organization (ILO, 2023), manufacturing productivity hinges significantly on workers' competencies in safety compliance, task execution, and innovation. As such, companies that invest in job-specific training and employee development experience reduced error rates, higher output quality, and greater operational consistency (Kassa & Worku, 2025).

This study operationalizes employee productivity using five key indicators. The first is the achievement of performance targets, which evaluates whether employees are meeting the set objectives in terms of quantity or quality of work. Second is the quality and accuracy of output, a vital measure in the paint industry where mistakes can lead to costly product defects or safety risks. The third indicator is timeliness in task completion, which reflects the employee's ability to meet deadlines and maintain efficiency under pressure. Fourth, the reduction in work-related errors will be assessed to determine how training and experience translate into precision and fewer reworks or incidents. Lastly, the study includes innovation and problem-solving ability, recognizing that

employees who apply creative thinking and proactively address challenges contribute more significantly to operational excellence.

1.2.3 Strategic Training and Development and Employee Productivity

Strategic training and development (T&D) play a crucial role in enhancing employee productivity by equipping workers with the necessary skills, knowledge, and competencies to perform their tasks effectively. Unlike conventional training approaches that are often compliance-driven, strategic T&D aligns learning initiatives with an organization's long-term goals, ensuring that employees are continuously developing in ways that contribute to overall business performance (Perkins & Robinson, 2025). Research highlights that organizations investing in well-structured training programs experience higher levels of efficiency, innovation, and employee engagement, ultimately leading to improved workforce productivity (Mutinda, 2021). When employees are provided with opportunities for continuous learning, onboarding programs, and skills training, they are more likely to enhance their problem-solving capabilities, adapt to technological advancements, and maintain high-quality output (Carpen, 2022).

Studies indicate that firms that treat training as a strategic investment rather than an operational necessity witness significant improvements in workforce performance and retention (Strack et al., 2012). However, many organizations have yet to fully integrate T&D as a strategic tool for productivity enhancement. At Basco, training is largely reactive, delivered on an ad-hoc basis rather than as part of a structured, long-term workforce development strategy. This lack of alignment between training initiatives and business objectives results in skill gaps, operational inefficiencies, and reduced employee motivation. By adopting a strategic approach to training and

development, Basco can bridge these gaps, improve employee engagement, and enhance overall productivity within the competitive paint manufacturing industry in Nairobi.

1.2.4 Paint Companies in Nairobi

Nairobi, as Kenya's industrial hub, hosts several major paint manufacturers competing both locally and regionally. The industry has experienced significant growth, driven by rapid urbanization, increased infrastructure development, and rising consumer demand for high-quality and eco-friendly paints (Kenya Association of Manufacturers [KAM], 2022). Technological advancements, including the development of low-volatile organic compounds and antimicrobial coatings, have further shaped the competitive landscape, compelling manufacturers to enhance product quality and operational efficiency (Plascon, 2024).

Among the industry leaders, Crown Paints Kenya Plc holds the largest market share, accounting for approximately 65% of Kenya's paint market (Lugaria, 2024). The company's competitive edge stems from its extensive distribution network, premium product portfolio, and sustained investment in R&D. Basco Products (K) Ltd, renowned for its Duracoat brand, is another dominant player, known for its innovation in textured coatings and eco-friendly paint solutions. Kansai Plascon, an international brand that acquired Sadolin Paints in 2017, has leveraged its global expertise to introduce high-performance coatings, strengthening its market presence in Kenya (Plascon, 2024). Other competitors, such as Nasib Industrial Products, Solai Paints, and Galaxy Paints, cater to niche markets, offering a variety of decorative, industrial, and automotive coatings (Polycarp, 2024).

Despite the sector's expansion, a critical challenge remains: the misalignment between workforce training and advancing industry demands. The Kenya Association of Manufacturers (KAM, 2022) highlights that while automation and advanced coating technologies are transforming production processes, most paint manufacturers lack structured, industry-specific training programs to equip employees with the necessary technical skills. For instance, Waithaka (2016) found that Basco Paints' inadequate investment in staff training resulted in skill gaps that negatively impacted product quality, customer satisfaction, and overall sales revenue growth. Similarly, Mutinda (2021) identified reactive rather than proactive training initiatives across Kenya's manufacturing sector, with companies primarily offering training only when operational challenges arise rather than as part of a continuous development strategy.

This lack of structured training and development (T&D) programs has broader implications for industry performance. Studies indicate that manufacturing firms with strategic, continuous learning initiatives achieve higher productivity, reduced operational errors, and improved workforce retention (Mohammed, Mohammed, & Gana, 2022). To sustain competitive advantage, paint manufacturers in Nairobi must integrate structured training programs that prioritize technical upskilling, onboarding standardization, and leadership development**.** Without these strategic interventions, skill gaps will persist, limiting efficiency, innovation, and long-term industry growth (Carpen, 2022)

1.2.5 Basco Products (K) Ltd

Basco Products (K) Ltd, established in 1976, is a leading paint manufacturer in Kenya and a key player in the East African market. With a state-of-the-art facility in Nairobi, the company produces over 20 million litres of paint annually, supplying markets across Tanzania, Uganda, Rwanda,

Burundi, South Sudan, and the DRC (Basco Products, n.d.). Despite its strong market presence, Basco faces significant workforce challenges in training and development (T&D). Current training efforts are largely reactive, focusing on regulatory compliance and immediate operational needs rather than long-term skill development. As a result, employee onboarding lacks a structured skill-building approach, and performance management training is conducted only before appraisals, leading to skill mismatches and inconsistent productivity levels (Waithaka, 2016).

1.3 Statement of the Problem

Employee productivity is a key determinant of organizational competitiveness and sustainability, particularly in industries such as manufacturing where efficiency, precision, and output quality are critical. In Kenya's paint manufacturing sector, declining productivity levels have been attributed to factors such as persistent skill gaps, limited employee engagement, and underutilization of structured development initiatives (Kenya Association of Manufacturers [KAM], 2022). Despite technological advancements and investments in machinery, many firms continue to experience production inefficiencies, quality inconsistencies, and high error rates that compromise profitability and market competitiveness (Musyoka, Ikua, & Mbuya, 2021).

At Basco Products (K) Ltd., internal performance reviews and industry reports reveal a recurring problem with employee productivity, manifested in missed performance targets, frequent operational delays, and high levels of rework and waste in production lines (Basco Products, 2024). The 2024 Learning and Development Report highlights that despite having the capacity to implement workforce development strategies, the organization conducted only six training sessions in the year, a trend that correlates with rising turnover and stagnating performance output

(Basco Products, 2024). Employees continue to report limited growth opportunities and a lack of alignment between training efforts and actual job demands.

Empirical studies underscore that high productivity is closely linked to the presence of structured training systems that equip employees with relevant skills and keep them adaptable to industry shifts (Juliani & Yuliana, 2025; Mohammed et al., 2022). However, most research in this area either focuses on service industries or generalizes findings across sectors without accounting for the unique productivity metrics and challenges in the manufacturing domain, particularly in paint production, where safety, accuracy, and speed are vital (Raza & Muhammad, 2021; Yimam, 2022).

Moreover, existing studies tend to concentrate on the provision of training rather than its measurable effects on workforce output. Few have examined how specific training interventions, such as continuous learning, onboarding, and technical skills training correlate directly with performance indicators such as defect rates, production turnaround time, and adherence to quality standards (Adamu et al., 2025). This creates a contextual and methodological gap in understanding the root causes of productivity challenges in Kenya's paint manufacturing industry.

This study therefore seeks to address the gap by investigating how strategic training and development initiatives, i.e. continuous learning, structured onboarding, and skills training affect employee productivity at Basco Products. By focusing on performance metrics specific to the paint manufacturing sector, the study aims to offer actionable insights that can guide workforce development strategies and improve operational output.

1.4.1 General Objective

The general objective of this study is to determine the effect of strategic training and development on employee productivity among paint companies in Nairobi. A case of Basco Products (K) Ltd.

1.4.2 Specific Objectives

i. To establish the effect of continuous learning on employee productivity among paint companies in Nairobi, Kenya.

ii. To assess the effect of onboarding programs on employee productivity among paint companies in Nairobi, Kenya.

iii. To determine the effect of skills training on employee productivity among paint companies in Nairobi, Kenya.

1.5 Research Questions

i. To what extent does continuous learning affect employee productivity among paint companies in Nairobi?

ii. To what extent do onboarding programs affect employee productivity among paint companies in Nairobi?

iii. To what extent does skills training affect employee productivity among paint companies in Nairobi?

1.6 Significance of the Study

This study is significant to government and policymakers as it provides insights into the role of strategic training and development (T&D) in enhancing productivity within Kenya's manufacturing sector. By analyzing how structured training initiatives impact employee efficiency, the findings can inform the formulation of policies that encourage organizations to move beyond compliance-based training towards productivity-driven programs. Regulatory bodies such as the Ministry of Labour and the Kenya Association of Manufacturers (KAM) can use this research to establish frameworks that incentivize companies to adopt continuous learning and skill development practices. Additionally, the study can contribute to national workforce planning efforts by highlighting how effective T&D programs help bridge skill gaps, reduce unemployment, and foster industrial growth, ultimately contributing to Kenya's economic development.

From a practical perspective, this research benefits businesses, particularly HR practitioners and organizational leaders in the paint manufacturing industry. By providing empirical evidence on the link between strategic T&D and employee productivity, companies can refine their training strategies to ensure they align with long-term business objectives. The study offers practical recommendations on structuring onboarding programs, continuous learning initiatives, and skill development efforts to maximize workforce potential. Additionally, the insights can assist HR managers in identifying gaps in their existing T&D frameworks, ensuring that training investments lead to measurable improvements in employee performance, job satisfaction, and overall organizational efficiency. Companies that embrace these findings may see reduced employee

turnover, improved operational performance, and enhanced competitiveness in the manufacturing sector.

For academia and future research, this study adds to the growing body of knowledge on strategic human resource management and workforce development. It bridges the research gap on the impact of T&D in Kenya's paint manufacturing industry, an area that has received limited empirical attention. Scholars can use the findings as a foundation for further studies on sector-specific training interventions and their effects on productivity. Additionally, the research provides a framework for analyzing the relationship between training methodologies and employee engagement, offering avenues for comparative studies across different industries. Universities and training institutions may also leverage these insights to design curricula that align with industry needs, ensuring graduates possess relevant skills that enhance employability and organizational performance.

1.7 Scope of the Study

This study focused on the strategic impact of training and development (T&D) on employee productivity in the paint manufacturing sector in Nairobi, with a specific emphasis on Basco Products (K) Ltd. The research examined training practices implemented between 2019 and 2025, with particular attention to continuous learning, onboarding programs, and skills training as the primary T&D initiatives under study. Geographically, the study was limited to Basco Products' operations in Nairobi, though the findings may have broader implications for the paint manufacturing industry in Kenya and comparable sectors in emerging markets.

The study considered employees from various departments, including production, human resources (HR), sales and marketing, operations, and audit. It did not extend to other manufacturing sectors or to organizations outside of the paint industry. The selected time frame captured recent T&D initiatives at Basco Products, ensuring that the findings remained contemporary and relevant to the company's operational context.

1.8 Limitations of the Study

This study has some limitations. Being a single-case study focused on Basco Products limits its generalizability to other companies or industries. The timeframe, 2019 to 2025 restricts insights into long-term impacts. The use of self-reported data introduced potential biases, including social desirability and recall bias. Additionally, access to certain data was limited due to confidentiality concerns, which may have affected the depth of the analysis. The study also did not account for external factors such as economic shifts or competitive market forces that may have influenced employee productivity. Furthermore, resource constraints limited access to some key stakeholders who could have provided additional insights. Despite these, the study offers valuable insights into how training and development impact productivity.

1.9 Delimitations of the Study

This study is deliberately limited to Basco Products and the paint manufacturing sector in Nairobi. While the findings may be applicable to other organizations within the same industry, the scope did not extend to other manufacturing sectors or geographic regions. Additionally, the research focused on the impact of specific T&D initiatives, namely, continuous learning, onboarding, and skills training, on employee productivity. Other forms of training, such as leadership development

and wellness programs, were excluded from the scope of this research. The study focused solely on employees within Basco Products and did not address external factors such as market conditions, economic policies, or other environmental variables that may influence employee performance and productivity. These delimitations helped to ensure that the research remained focused and manageable within the intended context.

1.10 Assumptions of the Study

The assumptions of this study outline the key conditions necessary for the research to proceed effectively. These assumptions establish the foundation for analysing the relationship between T&D programs and employee productivity at Basco Products (K) Ltd. It was assumed that Basco Products would provide accurate and comprehensive data on their training initiatives, including historical records, attendance, and employee performance metrics. The study also relied on the cooperation of employees, assuming they would participate willingly in surveys and provide truthful and thoughtful responses about their experiences with training programs and their perceived impacts on productivity.

Furthermore, the research assumed that the training programs under evaluation, continuous learning, onboarding programs, and skills training were representative of the T&D practices typically implemented in the paint manufacturing industry in Nairobi. It was also assumed that these programs remained consistent in their design and delivery during the study period (2019 - 2025), and that any observed changes in employee productivity could be attributed to the training interventions rather than external factors or significant internal disruptions. While the study focused on Basco Products, it was assumed that the findings would provide insights applicable to other paint manufacturing companies in Nairobi, given the common challenges and practices

within the industry. These assumptions were critical for framing the study and guiding its analysis, although deviations from them may have affected the validity and applicability of the research findings.

1.11 Theoretical Review

The theoretical framework establishes the groundwork for the study of well-known theories that explain and support the connections between the dependent variable, employee productivity, and the independent variables, skills training, onboarding programs, and continuous learning. Each independent variable is examined independently using the theory to which it pertains.

1.11.1 Human Capital Theory

Human Capital Theory, introduced by Becker in early 1960s, posits that investments in education and skill development enhance individual productivity and contribute to organizational and national economic success. The theory asserts that employees are valuable assets whose continuous learning and knowledge acquisition directly impact long-term organizational performance. In the context of Basco Products, continuous learning ensures that employees remain up to date with technological advancements and industry best practices, fostering adaptability, efficiency, and innovation. By equipping employees with relevant skills, the company can maintain a competitive edge in the dynamic paint manufacturing sector. This aligns with the broader perspective that human capital development plays a crucial role in workforce efficiency and business sustainability (Becker, 2009).

While Human Capital Theory underscores the importance of education and training in enhancing productivity, critics argue that it oversimplifies the relationship between learning and economic

success by neglecting external factors such as job quality, labor market conditions, and workplace culture (Brown et al., 2020). Brown, Lauder, and Cheung (2020) challenge the conventional notion that educational investment directly leads to higher earnings and economic growth, highlighting that automation and job market transformations can limit the expected benefits of human capital accumulation. Similarly, Leoni (2025) critiques the traditional human capital model for focusing narrowly on labor-productivity-enhancing skills while overlooking education's broader role in improving individual well-being and social mobility. The shift towards a multidimensional understanding of education, as advocated by Amartya Sen, suggests that workforce training should not only enhance job-related competencies but also empower employees with capabilities that contribute to their overall development. This critique is particularly relevant for Basco Products, where the absence of a structured learning culture may undermine the potential benefits of continuous learning initiatives. Addressing these gaps requires an integrated approach that combines skill development with broader employee engagement and workplace support systems.

1.11.2 Socialization Theory

Socialization Theory, introduced by Van Maanen and Schein (1977), explains how new employees acquire the knowledge, behaviors, and attitudes necessary for successful integration into an organization. Effective onboarding programs play a crucial role in this process by facilitating quicker adaptation, improving job performance, and fostering alignment with organizational culture. Research shows that structured onboarding enhances employee retention, engagement, and long-term productivity (Ford & Bauer, 2024). In particular, Bergman and Christensen (2023) emphasize that social interactions, mentorship, and digital learning tools significantly improve

workplace socialization, reinforcing the importance of early cultural integration for new employees.

Despite these advantages, Socialization Theory has limitations, particularly in recognizing individual differences in adaptation. Bauer (2019) critiques the model for assuming a uniform onboarding experience, whereas in reality, employees assimilate at different paces depending on personal traits, workplace culture, and available social support. Additionally, Poole (2023) argues that the increased use of digital interactions in modern workplaces has weakened traditional socialization structures, as remote onboarding often lacks the depth of in-person mentorship. However, other studies suggest that integrating digital tools into onboarding, such as AI-driven learning platforms and interactive virtual training, can enhance employee engagement and skill acquisition (Deloitte, 2024).

At Basco Products (K) Ltd., the lack of a structured onboarding framework has contributed to prolonged adjustment periods, lower engagement, and inefficiencies in employee productivity. Unlike firms in other manufacturing sectors that implement structured apprenticeships and technical mentorship programs, Basco's onboarding process remains largely administrative rather than skill-oriented. Addressing these gaps requires a strategic shift towards competency-based onboarding, incorporating job rotations, workplace simulations, and long-term mentorship to ensure that new hires adapt effectively and achieve productivity faster.

1.11.3 Resource-Based View

The Resource-Based View (RBV) asserts that a firm gains a sustainable competitive advantage by developing unique, valuable, and inimitable resources, including employee skills and

competencies (Barney, 1991). Strategic skills training enhances workforce capabilities, ensuring employees contribute effectively to organizational performance. At Basco Products, aligning skills training with business objectives addresses technical skill gaps, improves operational efficiency, and strengthens market competitiveness. Research highlights that when HR practices are integrated with RBV principles, they foster firm-specific human capital, making it difficult for competitors to replicate these advantages (Collins, 2022).

Despite its significance, RBV has been criticized for overlooking external factors such as industry shifts and technological disruptions. Gerhart and Feng (2021) argue that focusing solely on internal skills development is insufficient unless complemented by managerial support and technological adaptability. Additionally, Delery and Roumpi (2017) emphasize that accumulating firm-specific skills does not automatically translate to productivity gains unless effectively integrated into broader organizational strategies. At Basco Products, the lack of a structured link between skills training and strategic goals limits its impact. To fully leverage training for sustained competitive advantage, a dynamic approach is needed, one that enhances both internal competencies and external adaptability.

1.11.4 Goal-Setting Theory

Goal-Setting Theory, developed by Locke and Latham (1990), posits that specific, challenging, and achievable goals enhance employee motivation and productivity. The theory suggests that clear performance expectations improve focus, encourage effort, and drive better outcomes. At Basco Products, aligning training and development (T&D) programs with well-defined organizational goals ensures that employees remain engaged, work toward measurable productivity improvements, and contribute to overall business success. Research indicates that

employees who receive structured training with explicit performance targets are more likely to develop job-specific competencies, leading to enhanced efficiency and innovation (Noe, 2020). Additionally, goal specificity ensures that employees understand what is expected of them, reducing ambiguity and fostering a stronger commitment to achieving both individual and organizational objectives (Latham, 2023).

Despite its advantages, Goal-Setting Theory has been criticized for its limitations in dynamic and uncertain environments. Latham (2023) highlights that poorly communicated or frequently changing goals can lead to confusion, reduced motivation, and lower performance. Furthermore, setting overly ambitious goals may result in stress, burnout, and even unethical behavior, as employees may feel pressured to exaggerate performance outcomes. Altan, Begum, and Uler (2025) suggest that goal-setting effectiveness depends on whether goals are employer-assigned or self-set, with employer-set goals generally leading to higher effort levels. However, in the absence of proper feedback mechanisms, goal-setting may fail to sustain long-term motivation. At Basco Products, the lack of a structured goal-setting approach in T&D programs weakens employee engagement and limits training effectiveness. Addressing these gaps requires a strategic goal-setting framework that integrates clear performance metrics, regular feedback, and realistic expectations to maximize employee productivity.

1.12 Conceptual Framework

The conceptual framework of this study examines the relationship between strategic training and development (T&D) and employee productivity at Basco Products (K) Ltd. It identifies continuous learning, structured onboarding, and targeted skills training as key components of T&D (independent variables) that influence employee productivity (dependent variable). When

strategically aligned, these training initiatives enhance employee skills, work efficiency, innovation, and overall performance. The study assumes that structured and continuous T&D reduces skill gaps, boosts engagement, and fosters a high-performing workforce, ultimately improving organizational success in the paint manufacturing sector.

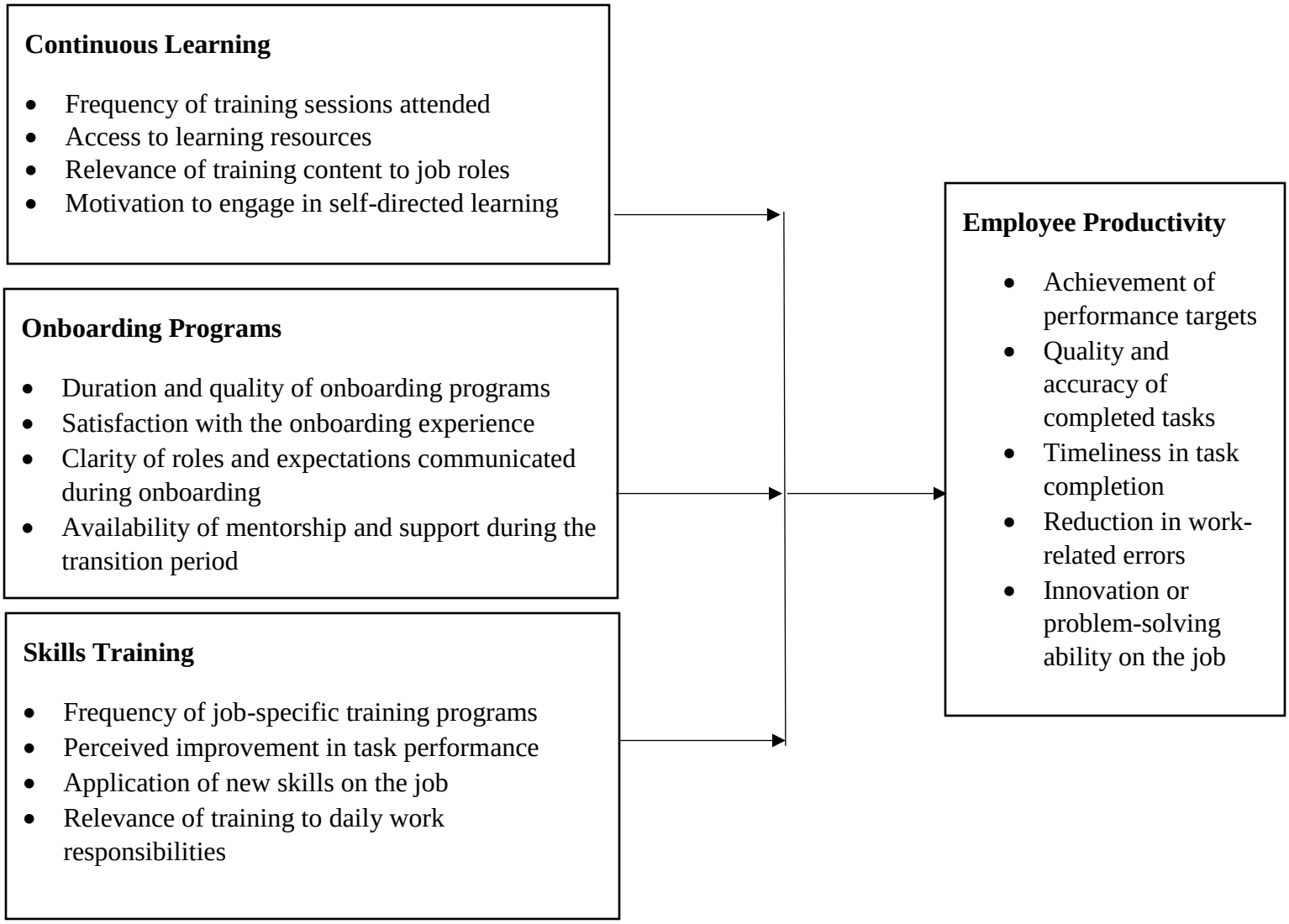


Figure 1 Conceptual Framework

Source: Researcher (2025)

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Strategic T&D play a critical role in enhancing employee productivity and overall organizational performance. In dynamic industries like paint manufacturing, continuous learning, structured onboarding, and targeted skills training are essential to maintaining a competitive edge. This chapter presents a detailed empirical review of existing research on the relationship between T&D and employee productivity. The review is structured around four key themes: continuous learning, onboarding programs, skills training, and strategic T&D. The chapter concludes by identifying research gaps, highlighting the need for a more strategic approach to T&D within the context of Basco Products (K) Ltd.

2.2 Empirical Review

This section presents a review of existing empirical studies related to the relationship between strategic training and development practices and employee productivity. The review focuses on the three main dimensions of strategic training and development: continuous learning, onboarding programs, and skills training. Each sub-section explored how these elements influence employee productivity based on prior research conducted in various organizational contexts, both locally and globally. The final sub-section consolidated these elements to assess the overarching effect of strategic training and development on employee productivity. The purpose of the empirical review was to identify consistent findings, contradictions, and knowledge gaps that inform the direction and justification of the current study.

2.2.1 Continuous Learning and Employee Productivity

A study conducted by Budhiraja (2023) in India explored the impact of continuous learning on employee performance, integrating Organizational Support Theory and Social Cognitive Theory. The research focused on how managers' coaching behaviours moderate the relationship between continuous learning and employee task performance. A survey of 298 software engineers in IT firms revealed two key coaching behaviours, inspiration-based and facilitation-based coaching, which were found to significantly influence employee performance. While facilitation-based coaching improved both task and contextual performance, inspiration-based coaching positively affected task performance but negatively impacted contextual performance. The study underscores the role of managerial support in maximizing learning outcomes. However, the research is limited to the IT sector in India, making it difficult to generalize findings to manufacturing industries. Moreover, external factors such as technological advancements, company policies, and individual learning preferences were not considered. This study sought to bridge these gaps by examining how continuous learning, training relevance, and managerial support affect employee productivity in Kenya's paint industry.

A study by Lin and Huang (2021) in Taiwan examined how an organizational learning culture (OLC) impacts job satisfaction, employee turnover intentions, and job performance. Using structural equation modeling (SEM) on 434 employees in a telecommunications company undergoing restructuring, the study found that a strong learning culture reduced turnover intentions and enhanced job performance, with job satisfaction acting as a mediating factor. Employees in companies with well-developed learning cultures exhibited greater resilience and engagement during changes, demonstrating that continuous learning fosters adaptability. However, this study was conducted in the telecommunications sector and focused on employee retention rather than

direct productivity outcomes. Additionally, the study examined learning within crisis-driven organizational changes, rather than structured, long-term training efforts. This study filled the gap by analysing how continuous learning enhances workforce productivity in a stable industry setting such as paint manufacturing.

In South Africa, Maisiri and Van Dyk (2021) investigated the impact of Industry 4.0 (I4.0) skills on employee training and productivity in the manufacturing sector. Using qualitative thematic analysis from 20 semi-structured interviews, the study found that companies adopting I4.0 without workforce displacement successfully implemented incremental learning, automation of routine tasks, and in-house reskilling programs. Employees with advanced problem-solving, critical thinking, and emotional intelligence skills adapted better to new technologies. While the study underscores the role of continuous learning in industrial transformation, its qualitative approach limits generalizability, and it focuses solely on South Africa, a country with a unique economic and educational landscape. Additionally, the study places greater emphasis on soft skills rather than structured technical training effectiveness. This research extended the analysis by assessing how structured technical training and continuous learning translate into measurable productivity gains in Kenya's paint industry.

A study by Mustafa and Lleshi (2024) highlights the strategic role of continuous learning in enhancing workforce adaptability and productivity. Their research found that organizations prioritizing lifelong learning reported lower turnover, higher engagement, and improved job proficiency. Employees engaging in ongoing professional development contributed more effectively to company objectives, securing a sustainable competitive advantage. However, while the study emphasizes the general benefits of continuous learning, it does not address industry-specific applications. The extent to which these principles apply in Kenya's paint sector, where

technical skills and operational efficiency are crucial, remains unexplored. This study narrowed the gap by contextualizing continuous learning within the Kenyan paint industry and assessing its impact on employee performance.

A study by Hajdari et al. (2023) examined how continuous learning influences employee productivity in Kosovo's commercial banking sector. Their findings revealed that continuing education accounted for 40.2% of employee productivity variations and significantly enhanced financial performance. Structured training enabled employees to optimize business operations and improve efficiency. However, this study focuses on the financial sector, where knowledge-based work differs significantly from the technical and hands-on skills required in manufacturing. This research extended the discussion by examining continuous learning in a production environment, where skill development affects product quality, safety, and efficiency.

Within the manufacturing industry, Herjuna et al. (2024) analyzed how structured training programs affect productivity, motivation, and employee retention. Their study concluded that customized learning interventions tailored to job roles enhance skill application and job performance. The research confirms that industry-specific training is more effective than generic learning models. However, the study does not focus on the paint manufacturing sector, which involves unique processes such as chemical formulation, production safety, and technical skills development. This research sought to bridge this gap by evaluating how continuous learning programs impact employee productivity specifically within Kenya's paint manufacturing industry.

A study by Ozoko and Ede (2020) explored how knowledge retention and application affect product reliability and standardization in Nigerian chemical and pharmaceutical firms. Employees who participated in structured learning programs produced higher-quality outputs with greater

consistency. However, this study is limited to pharmaceutical companies, which differ from paint manufacturers in terms of production techniques and regulatory frameworks. This study extended their findings by investigating how continuous learning enhances quality control and production efficiency in Kenya's paint sector.

A study on paint manufacturers in South-East Nigeria by Mbah, Aga, and Onyia (2018) found that training and skill enhancement led to significant improvements in product quality and innovation. The research affirms that continuous learning enables employees to remain competent in technical and operational tasks, ultimately boosting productivity. However, the study does not evaluate the long-term impact of learning on employee engagement and career progression. Additionally, Nigeria's industrial policies differ from Kenya's, making direct application of findings difficult. This study addressed these gaps by analysing how continuous learning improves both short-term productivity and long-term workforce sustainability in Kenya's paint industry.

2.2.2 Onboarding Programs and Employee Productivity

Zuiker and Westerlaken (2024) conducted an exploratory mixed-methods study on onboarding effectiveness in the Netherlands' cruise industry, a sector with high employee turnover. Using qualitative surveys and semi-structured interviews, the study found that while companies create a welcoming environment, they often lack structured and detailed onboarding information, which reduces employee preparedness, confidence, and productivity. The study emphasized that effective preboarding communication enhances retention and engagement, yet it did not measure onboarding's direct impact on productivity. Additionally, the hospitality sector differs significantly from manufacturing, where onboarding requires technical competency development.

This study addressed these gaps by assessing structured onboarding's impact on job performance, skill development, and operational efficiency in Kenya's paint industry.

Patel and Mohanty (2023) examined trends in onboarding and their impact on employee retention and organizational culture using a mixed-methods approach. Their findings revealed that virtual onboarding is a growing trend, improving efficiency but reducing hands-on engagement. Additionally, 69% of employees decide to stay in an organization based on their onboarding experience, highlighting the significance of well-structured onboarding. However, their study was heavily focused on retention rather than productivity and did not consider industries where hands-on technical training is essential. Moreover, virtual onboarding may not be effective in paint manufacturing, where physical demonstrations, safety training, and process integration are critical. This study filled these gaps by evaluating structured, in-person onboarding programs in Kenya's paint industry, measuring their direct impact on workforce productivity.

Murgoski (2023) analyzed onboarding and employee engagement in North Macedonia's pharmaceutical industry, using an online survey with 228 responses assessed through the Intellectual, Social, and Affective (ISA) engagement scale. Findings revealed that intellectual engagement is the most critical factor in onboarding, and generational differences influence onboarding effectiveness. While the study provided valuable insights into engagement, it did not analyze onboarding's direct impact on productivity or consider industries where technical skills and safety protocols are central to onboarding success. Furthermore, pharmaceutical companies often have structured onboarding aligned with regulatory requirements, which may differ from the paint industry's operational needs. This study extended the research by investigating onboarding effectiveness in a manufacturing environment where technical competency is crucial.

Nyaribo (2023) conducted a quantitative study on onboarding practices in Kenya's Sub-County hospitals, focusing on orientation, coaching, mentoring, and follow-up evaluation plans. Using a survey of 498 employees, the study found that orientation (β=0.178, p=0.003), mentoring (β=0.149, p=0.000), and follow-up evaluations (β=0.157, p=0.004) significantly enhanced employee performance, while coaching was statistically insignificant. However, hospitals operate under different work structures than manufacturing firms, where onboarding must focus on hands-on technical training, compliance, and safety protocols. Additionally, while the study measured general employee performance, it did not specifically examine onboarding's role in improving productivity. This study bridged this gap by evaluating structured onboarding in Kenya's paint sector, focusing on how onboarding enhances efficiency, skill development, and workforce productivity.

Hoogeveen (2024) explored remote onboarding and managerial styles in influencing employee productivity, job satisfaction, and autonomy. The study found that onboarding programs designed around compliance, clarification, culture, and connection reduce uncertainty and improve engagement. However, remote onboarding was found to be ineffective for industries requiring hands-on experience. While the study provides insight into digital onboarding, its applicability to paint manufacturing is limited, as employees in this sector require practical skill acquisition and hands-on process familiarization. This study examined structured, in-person onboarding's role in productivity and workforce efficiency in Kenya's paint industry.

Wang et al. (2020) analyzed challenges in digital onboarding during the COVID-19 pandemic, identifying ineffective communication, lack of immediate feedback, and difficulty accessing critical information as barriers to productivity. Although the study highlights barriers in digital

onboarding, it does not examine traditional or hybrid onboarding models, which are more relevant to manufacturing firms. This study filled this gap by assessing structured onboarding for skill-based roles in Kenya's paint industry, where practical training and compliance protocols are essential.

Petrilli et al. (2022) conducted an exploratory qualitative study in Italy to examine how young graduates under 30 experienced digital onboarding in structured organizations during the COVID-19 pandemic. Using thematic analysis of ethnographic sheets, the study found that newcomers in digital onboarding environments struggled with accessing information, maintaining proactivity, and receiving immediate feedback, which affected their ability to integrate into the workplace. The study highlighted the importance of structured digital onboarding in enhancing knowledge transfer and social integration while emphasizing the need for organizations to implement practices that support socialization in remote work environments. However, while the study provides valuable insights into digital onboarding, its focus on early-career employees in corporate settings makes it less applicable to industries requiring hands-on skill acquisition, such as manufacturing. It also does not assess how digital onboarding compares to traditional in-person onboarding, particularly in sectors where technical training, safety compliance, and process efficiency are essential. Given that Kenya's paint industry relies heavily on structured, in-person onboarding due to the hands-on nature of manufacturing work, this study builds on Petrilli et al.'s (2022) findings by evaluating how structured onboarding impacts workforce integration, operational efficiency, safety compliance, and long-term productivity in the sector.

Ilma and Desiana (2023) conducted a study analyzing the impact of onboarding on job performance through the mediating role of employee creativity. Using data from 204 employees

and applying Structural Equation Modeling (SEM), the study found that effective onboarding enhances employee creativity, which in turn positively influences job performance. The study also highlighted the shift towards online, offline, and blended learning approaches in onboarding, emphasizing the importance of structured adaptation processes for new employees. However, while the findings underscore the benefits of well-structured onboarding, the study lacked industry-specific insights, particularly for technical work environments like paint manufacturing, where onboarding must integrate hands-on training, safety compliance, and operational efficiency. Additionally, the study did not explore how different onboarding methods affect productivity across sectors that require specialized technical skills. Addressing these gaps, the current study examined how structured onboarding in Kenya's paint sector influences operational efficiency, technical competency, and workforce performance, ensuring that new hires effectively integrate into the industry's unique production and regulatory environment.

2.2.3 Skills Training and Employee Productivity

Juliani and Yuliana (2025) conducted a case study at PT Gibbs Technology to analyze the impact of on-the-job, off-the-job, and technology-based training on employee performance. Using qualitative methods such as interviews and first-hand observations, they found that targeted training programs significantly enhanced workforce competence, operational efficiency, and customer satisfaction. Employees trained in customer service, digital marketing, and logistics management software demonstrated faster response times, reduced shipping errors, and increased confidence. However, the study was limited to the e-commerce and digital marketing sectors, where training needs differ from manufacturing industries that require technical skill development, precision-based training, and safety compliance. Additionally, the study focused only on

immediate training outcomes and did not assess retraining frequency or long-term productivity improvements. The study also relied on only two respondents, making its findings difficult to generalize across different employee levels. This research extended the discussion by evaluating structured skills training in Kenya's paint manufacturing sector, focusing on long-term job performance, workforce adaptability, and operational safety.

Similarly, Al-Omari, Alomari, and Aljawarneh (2020) examined the relationship between structured skills training and employee performance in a corporate setting using a correlation design. The study found a strong positive relationship between training participation and workplace engagement, productivity, and adaptability. Employees who regularly attended structured training programs demonstrated greater efficiency and job proficiency. However, while the study highlights the benefits of corporate training, its findings may not be directly applicable to technical industries such as paint manufacturing, where hands-on training plays a more significant role. Additionally, the study did not assess the effectiveness of different training delivery methods, such as simulation-based learning or mentorship programs, which are critical for technical industries. This study bridged the gap by evaluating how sector-specific skills training enhances workforce efficiency and safety compliance in Kenya's paint industry.

Raza and Muhammad (2021) conducted a quantitative study on technical training programs in Pakistan's manufacturing sector and found that structured technical training significantly improved job efficiency, teamwork, and innovation. Employees who participated in frequent training programs reported higher job satisfaction and lower turnover rates, reinforcing the importance of continuous learning in talent retention. However, while the study effectively demonstrates the value of technical training, it does not differentiate between on-the-job and off-

the-job training methods or assess which approach yields better productivity outcomes. Additionally, the research does not explore industry-specific challenges, such as chemical handling and machine operation in paint manufacturing. Addressing this gap, the current study examined the effectiveness of different training methodologies in Kenya's paint industry, particularly in enhancing workforce efficiency, product quality, and operational safety.

Likewise, Gange and Barongo (2024) investigated the impact of training programs on workforce productivity at Tanzania's Police Headquarters using a case study approach. The study assessed on-the-job training, promotional training, refresher courses, technological training, and orientation programs and found that skills training improved job satisfaction, staff retention, and operational efficiency. However, the study also highlighted significant barriers to effective training, such as the absence of training needs assessments, outdated curricula, inadequate trainers, and insufficient funding. These challenges created a gap between training objectives and actual employee skill development. Although the study provides useful insights into training constraints, its focus on a public service institution makes it difficult to generalize to private sector industries, which have different training needs and performance metrics. Furthermore, public institutions often operate under different regulatory and funding constraints compared to manufacturing firms, where productivity and quality control are primary concerns. The present study built on these findings by investigating training challenges within Kenya's paint manufacturing sector and identifying strategies to enhance the effectiveness of skills training programs in a competitive industrial setting.

Additionally, Odhiambo (2018) examined the impact of training and development on employee productivity at Safaricom Kenya Ltd, a leading telecommunications firm. The study, which used

a quantitative research design, found that structured training programs improved employee motivation, job proficiency, and adaptability to new technologies. However, since the study focused on a service-based organization, its findings may not fully apply to technical industries that require specialized, hands-on training. Unlike telecommunications, where digital skills training is prioritized, manufacturing sectors like paint production require training in machine operation, quality control, and safety compliance. The current research expanded on this by assessing the effectiveness of sector-specific skills training in Kenya's paint manufacturing industry, identifying the key competencies that drive productivity.

2.2.4 Strategic Training and Development and Employee Productivity

Elbanna and Elsharnouby (2025) conducted a mixed-methods study in the hospitality industry to examine the role of strategic learning in enhancing firm performance. Their research found that organizations prioritizing continuous learning and strategic skill development were more resilient to market disruptions, such as the COVID-19 pandemic. While this study underscores the importance of learning-oriented cultures, its focus on service-based industries limits its applicability to manufacturing environments, where technical expertise, safety compliance, and efficiency-driven training are crucial. Additionally, the study did not assess long-term productivity improvements resulting from training interventions. This research addressed these gaps by analyzing how structured training initiatives in Kenya's paint manufacturing sector contribute to workforce efficiency, safety, and long-term productivity.

Sunil (2023) developed a comprehensive framework for organizational learning and development, emphasizing that structured training bridges performance gaps, enhances decision-making, and fosters long-term employee engagement. However, the study lacked an industry-specific focus and

did not assess how training impacts operational efficiency, safety compliance, or defect rates in industrial settings. While Sunil's research establishes training as a key driver of employee performance, it does not examine the nuances of skill-based training required in manufacturing industries. This study extended Sunil's framework by evaluating how strategic training aligns with technical skills development and compliance requirements in Kenya's paint industry.

Boadu et al. (2020) investigated the role of training as a performance tool in Ghana's district assemblies, revealing a positive correlation ($r = 0.3347$, $p = 0.030$) between structured training programs and employee performance. The study also found that job satisfaction improved with well-organized training programs, though budget constraints and limited training opportunities hindered effectiveness. However, since this study was conducted in a public-sector setting, where training needs differ significantly from skill-intensive industries like paint manufacturing, its findings cannot be directly applied to Kenya's manufacturing sector. This research built upon Boadu et al.'s work by focusing on the impact of targeted technical and operational training on workforce productivity in Kenya's paint industry.

Mohammed et al. (2022) examined training's impact on employee productivity in Nigerian businesses, concluding that structured development programs enhanced skill proficiency and efficiency. However, the study did not differentiate between industries, making it unclear whether the same training approaches apply in technical fields such as paint manufacturing, which requires compliance training, machine operation skills, and chemical handling expertise. This study sought to bridge this gap by assessing how industry-specific training programs contribute to process efficiency, quality control, and compliance in Kenya's paint industry.

Adamu et al. (2025) conducted a study to assess the impact of training and development on employee productivity at Niger State Polytechnic, Zungeru, Niger. Using a survey research design, the study targeted 367 academic staff who had undergone training through tetfund between 2010 and 2023. A sample size of 184 respondents was selected using stratified and simple random sampling techniques, and data were collected through structured questionnaires. The study employed chi-square analysis at a 5% significance level to test hypotheses and found that training positively influenced employees' knowledge, teaching methods, research output, and overall productivity. However, the study focused exclusively on academic staff, whose productivity is measured in research and teaching effectiveness, rather than hands-on technical skills required in industrial settings. Furthermore, the regulatory framework and nature of training in higher education differ significantly from manufacturing, where skill acquisition involves machine operation, safety compliance, and process optimization. To address these gaps, the current study extended prior research by investigating how structured skills training influences production efficiency, quality control, and workforce adaptability in Kenya's paint industry, ensuring that employees develop the technical competencies necessary for improved manufacturing productivity.

Yimam (2022) examined the impact of training on employee performance at Bahir Dar University, Ethiopia, using a quantitative cross-sectional survey of 316 administrative employees. The study found that training needs assessment, design, delivery style, and evaluation significantly impacted performance. However, the study focused on an academic setting rather than a manufacturing industry where structured technical training, safety protocols, and process optimization are essential for productivity improvements. Furthermore, it did not incorporate key performance indicators (KPIs) such as production efficiency and defect rates, which are crucial in industrial

settings. This study built on Yimam's work by analyzing how structured training effectiveness in Kenya's paint industry can be measured using KPIs like output quality, operational efficiency, and workforce adaptability.

Gatakaa (2018) conducted a study to examine the impact of employee training and development on employee performance in higher education institutions, with a focus on the United States International University-Africa (USIU-Africa). Using a descriptive research design, the study targeted a population of 405 faculty and staff members, selecting a sample of 123 respondents through stratified sampling. Data were collected via questionnaires and analyzed using descriptive statistics. The findings revealed that on-the-job training significantly enhanced employee performance by increasing knowledge, providing practical experience, and improving adaptability to new technologies and evolving job demands. Additionally, the study highlighted that well-designed training programs effectively addressed employee skill gaps and aligned with organizational goals, ultimately improving job proficiency and innovation. However, the study failed to establish whether training designs were consistently effective, whether organizations used the most appropriate training methods, or whether strategic training plans were aligned with evolving workforce needs. Moreover, the study's focus on an academic institution limits its applicability to the manufacturing sector, where skill-based training, safety compliance, and technical competencies are crucial for operational efficiency. To address these gaps, the current study extended Gatakaa's findings by investigating how structured training programs enhance job-specific competencies, production efficiency, and workforce adaptability in Kenya's paint manufacturing industry.

Mohd et al. (2020) conducted a study to examine the impact of training and development on employee performance in a property management corporation. The study adopted a quantitative

and descriptive research approach, collecting data through 100 valid questionnaires completed by employees. Using simple random sampling, the research focused on one dependent variable, employee performance and one independent variable, training and development, comprising three dimensions: training needs assessment, training and development techniques, and career development. The findings revealed that employees believed training needs assessments should be conducted before implementing training programs, that appropriate techniques should be used to ensure effective knowledge transfer, and that career development initiatives should be integrated to enhance employee performance. While the study confirmed the positive impact of structured training on workforce efficiency and engagement, its reliance on a cross-sectional research design limited the ability to assess long-term productivity improvements resulting from training investments. Additionally, the study was conducted in a corporate service-oriented environment, making it less applicable to technical industries like paint manufacturing, where specialized training is crucial. To address these gaps, the current study extends Mohd et al.'s research by assessing the long-term effects of strategic training investments on workforce performance in Kenya's paint manufacturing sector. This study incorporated industry-specific Key Performance Indicators (KPIs), such as production efficiency, defect rates, and compliance adherence, to provide a more precise measurement of productivity improvements over time.

2.3 Summary and Research Gap

The literature review explored the impact of continuous learning, onboarding, skills training, and strategic training & development (T&D) on employee productivity. Research across different industries globally demonstrates that well-structured training initiatives enhance efficiency, job satisfaction, retention, and organizational performance. However, significant gaps remain,

particularly regarding the application of these training approaches in manufacturing sectors, specifically Kenya's paint industry.

Continuous learning has been shown to improve employee adaptability, innovation, and overall efficiency (Budhiraja, 2023; Mustafa & Lleshi, 2024). Studies in the finance, healthcare, and technology sectors highlight that continuous learning reduces turnover and enhances performance (Hajdari et al., 2023; Herjuna et al., 2024). However, existing studies often lack an industry-specific focus and do not assess the long-term impact of continuous learning on operational productivity. This study bridged these gaps by evaluating how continuous learning initiatives influence technical proficiency, error reduction, and long-term workforce efficiency in Kenya's paint industry.

Onboarding programs are crucial in integrating employees into organizations, fostering engagement, and enhancing retention (Hoogeveen, 2024; Patel & Mohanty, 2023). Research in industries such as cruise lines, healthcare, and pharmaceuticals show that structured onboarding reduces uncertainty and enhances job satisfaction (Zuiker & Westerlaken, 2024; Murgoski, 2023; Nyaribo, 2023). However, most studies focus on corporate onboarding or digital onboarding models, failing to explore how structured, skill-based onboarding enhances workforce productivity in technical fields. This study addressed this gap by analyzing onboarding effectiveness in paint manufacturing, where hands-on learning, safety compliance, and process efficiency are crucial for workforce integration.

Skills training has been identified as a critical factor in improving employee performance across multiple industries (Al-Omari et al., 2020; Raza & Muhammad, 2021). Research in telecommunications, police services, and general manufacturing suggests that a combination of

on-the-job, off-the-job, and technology-based training enhances productivity, teamwork, and operational efficiency (Gange & Barongo, 2024; Marwa, 2022). However, prior studies often overlook the challenge of balancing training with production demands and fail to assess the long-term sustainability of skills training programs. This study bridged this gap by evaluating how structured skills training programs in Kenya's paint industry enhance technical competencies, reduce operational errors, and improve safety compliance over time.

Strategic training and development (T&D) aligns workforce skills with organizational goals, industry requirements, and long-term competitiveness (Armstrong, 2023; Sunil, 2023). Research confirms that structured, long-term training programs drive competitive advantage, workforce adaptability, and operational excellence (Elbanna & Elsharnouby, 2025; Mohammed et al., 2022). However, most studies focus on public institutions or corporate environments, neglecting technical industries where process efficiency and safety training are critical. Furthermore, many studies rely on cross-sectional methodologies, limiting their ability to track long-term productivity improvements. This study addressed these gaps by examining the direct link between strategic training investments and productivity in Kenya's paint industry, using industry-specific Key Performance Indicators (KPIs) such as production efficiency, defect rates, and compliance levels.

This literature review highlights several gaps in training and development research; Limited research on training effectiveness in manufacturing, particularly in Kenya's paint industry; Few studies measure training impact using production-based KPIs such as defect rates and safety compliance; Most studies focus on short-term training outcomes rather than long-term workforce development and retention and lack of research on industry-specific training constraints, such as balancing production cycles and training needs. This study addressed these gaps by investigating

how strategic training enhances productivity, safety, and retention in Kenya's paint industry. Unlike previous research, it used industry-specific performance metrics to assess training effectiveness and provide practical recommendations for optimizing workforce development strategies.

By addressing these empirical, conceptual, and methodological gaps, this study contributes to a deeper understanding of how structured training programs enhance workforce productivity in Kenya's paint manufacturing sector, ultimately providing practical recommendations for optimizing training investments.

Table 1: Key Research Summary Gaps Table

Source: Researcher (2025)

Authors & Context	**Focus of Study**	**Major Findings**	**Gaps in Research**	**Focus of the Current Study**
Maisiri & Van Dyk (2021) - South Africa	Impact of Industry 4.0 (I4.0) skills on training and productivity in manufacturing	Incremental learning, automation, and in-house reskilling improve productivity and adaptability	Qualitative approach limits generalizability; emphasizes soft skills over structured technical training	Continuous learning is essential for adapting to technological advancements in manufacturing
Mustafa & Lleshi (2024)	Strategic role of continuous learning in workforce adaptability and productivity	Lifelong learning reduces turnover and enhances job proficiency	Lacks industry-specific applications; does not address Kenya's paint sector	Continuous learning secures a sustainable competitive advantage in dynamic industries
Juliani & Yuliana (2025) - Indonesia	Impact of different training methods on employee performance	Targeted training improves workforce competence, customer response time,	Study focused on e-commerce and digital marketing; lacks insights into technical skills training in manufacturing	Structured training enhances technical competencies, safety compliance, and workforce adaptability

		and operational efficiency		
Al-Omari, Alomari & Aljawarneh (2020) - Corporate Sector	Relationship between skills training and employee performance	Structured training improves employee engagement and efficiency	Lacks application to hands-on industries like manufacturing; does not assess different training delivery methods	Sector-specific skills training enhances efficiency, compliance, and workforce integration
Raza & Muhammad (2021) - Pakistan	Impact of technical training on employee performance in manufacturing	Technical training improves job efficiency, teamwork, and innovation	Does not differentiate between on-the-job and off-the-job training; lacks an industry-specific focus	Structured skills training boosts operational efficiency, reduces errors, and enhances product quality
Mohd et al. (2020) - Corporate Settings	Strategic T&D effects on retention and engagement	Structured training improves retention and problem-solving skills	Cross-sectional study; lacks long-term performance tracking	Strategic training enhances workforce stability and problem-solving capabilities
Sunil (2023)	Organizational learning and development framework	Structured training bridges performance gaps and enhances decision-making	Lacks industry-specific focus; does not assess technical training effectiveness	Strategic training improves efficiency, compliance, and decision-making
Mohammed et al. (2022) - Nigeria	Impact of training on employee productivity in businesses	Structured development programs increase skill proficiency and efficiency	Does not differentiate between industries; lacks application to technical sectors	Targeted training enhances compliance, machine operation skills, and overall workforce efficiency
Yimam (2022) - Ethiopia	Training effectiveness in public organizations	Poorly structured training programs reduce impact	Lacks concrete methods to measure training effectiveness	Training impact should be measured using industry-specific KPIs such as production efficiency, error rates, and compliance

Zuiker & Westerlaken (2024) - Netherlands	Effectiveness of onboarding in high-turnover industries	Effective onboarding improves employee retention and engagement, but lacks structured training details	Focuses on hospitality sector; does not assess onboarding's impact on productivity in technical industries	Study extends findings by evaluating structured onboarding's role in Kenya's paint sector
Patel & Mohanty (2023)	Trends in onboarding and employee retention	69% of employees decide whether to stay based on onboarding quality	Overemphasizes virtual onboarding, lacks insights into hands-on industries	Examines non-virtual, structured onboarding's effect on workforce productivity
Murgoski (2023) - North Macedonia	Relationship between onboarding and employee engagement	Intellectual engagement is most critical during onboarding	Does not analyze onboarding's impact on productivity in technical industries	Bridges gap by evaluating structured onboarding's effect on operational efficiency
Nyaribo (2023) - Kenya	Onboarding practices in healthcare	Employee orientation, mentoring, and follow-up evaluation enhance job performance	Focuses on public healthcare sector; lacks insights into manufacturing environments	Examines structured onboarding's role in skill acquisition and workforce integration
Hoogeveen (2024)	Role of remote onboarding in job satisfaction and autonomy	Onboarding designed with compliance, clarification, culture, and connection improves engagement	Focuses on remote onboarding, does not assess technical industries requiring hands-on training	Evaluates structured onboarding's impact on technical training and operational efficiency
Wang et al. (2020)	Challenges in digital onboarding	Ineffective communication and lack of immediate feedback reduce productivity in digital onboarding	Examines remote onboarding, does not analyze traditional or hybrid onboarding models in manufacturing	Study assesses structured, in-person onboarding for technical job roles

Petrilli et al. (2022)	Role of digital onboarding in workforce integration	Digital onboarding enhances knowledge transfer and workplace socialization	Focuses only on digital methods, does not evaluate traditional structured onboarding	Extends findings by analyzing how structured onboarding in Kenya's paint industry enhances workforce efficiency
Ilma & Desiana (2023)	Onboarding and employee creativity	Effective onboarding fosters team integration and problem-solving	Lacks industry-specific insights, particularly in structured technical work environments	Evaluates structured onboarding's impact on operational efficiency, technical competency, and job performance

CHAPTER THREE:

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research methodology adopted to investigate the influence of strategic training and development on employee productivity at Basco Products (K) Ltd. It outlines the research design, target population, sampling techniques, data collection instruments, and procedures employed in the study. The chapter also details the methods used for data analysis and the diagnostic tests conducted to ensure the validity and reliability of the regression model. Furthermore, ethical considerations observed throughout the research process are discussed. The methodological approach was guided by the study's objectives and was designed to generate empirical evidence that informs both academic inquiry and practical decision-making in human resource development.

3.2 Research Design

A research design is the overall strategy that outlines how data are collected, measured, and analyzed to address the research questions of a study (Creswell & Creswell, 2023). It provides a framework that guides the researcher in identifying patterns, testing relationships, and drawing conclusions based on empirical evidence.

This study adopted a quantitative approach using a descriptive research design, which systematically described the characteristics of the variables and the relationships among them without manipulation (Saunders, Lewis, & Thornhill, 2019). The descriptive design was appropriate for this study as it allowed for a detailed and structured examination of how various

strategic training and development programs, namely continuous learning, onboarding programs, and skills training, influenced employee productivity at Basco Products (K) Ltd.

The design also facilitated the use of structured questionnaires to gather quantifiable data, which were analyzed using descriptive and inferential statistical methods, including correlation and multiple regression analysis.

3.3 Research Site

The study was conducted at Basco Products (K) Ltd, a leading paint manufacturing company headquartered in Nairobi, Kenya. Data collection took place at the company's headquarters, where key departments such as Human Resource (HR), Operations, Sales and Marketing, Finance, Audit, and Research and Development are centralized. These departments play a critical role in workforce development and organizational performance, making them ideal for assessing how training and development (T&D) initiatives influence employee productivity.

By collecting data from employees across diverse functional areas, the study sought to determine how various training initiatives influenced skill development, employee efficiency, and overall business outcomes.

3.4 Target Population

The target population for this study comprised all 221 employees of Basco Products (K) Ltd, including staff across various managerial levels and functional departments. This population included HR personnel responsible for designing and implementing training programs, middle and top-level managers who assess training effectiveness, operational staff who undergo technical and

operational training, as well as employees from finance, sales, and research departments who contribute to workforce efficiency and organizational learning.

By focusing on this population, the study ensured a comprehensive and representative assessment of the impact of strategic training and development on employee productivity at Basco Products (K) Ltd.

3.5 Sampling and Sampling Procedure

Sampling is the process of selecting a subset of individuals from a larger population to participate in a study, allowing researchers to make inferences about the entire population (Hussain, 2025). A well-structured sampling process ensures that the selected participants adequately represent the characteristics of the target population, enhancing the validity and generalizability of the research findings (Saunders, Lewis, & Thornhill, 2019).

In this study, sampling was conducted to obtain a representative group of employees from Basco Products (K) Ltd, ensuring that the insights drawn accurately reflected the impact of training and development on employee productivity.

3.5.1 Sampling Procedure

This study employed stratified random sampling to ensure fair representation of employees across different functional areas. Employees were categorized into strata based on their respective departments, ensuring that key functions within Basco Products (K) Ltd were adequately represented. After stratification, proportional allocation was applied to ensure each department's sample size reflected its proportion within the total workforce. Finally, within each department,

simple random sampling was used to select respondents, ensuring equal representation and minimizing selection bias.

Stratified random sampling was appropriate for this study because it guaranteed that each department was fairly represented, thereby improving the reliability and validity of the findings. Since different departments experience training and development in varying ways, this method allowed for comparative analysis of its effectiveness across employee groups. Additionally, the use of simple random sampling within each stratum ensured that every employee had an equal chance of being selected, reducing the risk of bias and increasing the objectivity of the study.

The sample size for this study was determined using Yamane's (1967) formula, which is widely used for calculating appropriate sample sizes in survey research. The formula is given as:

$$\boldsymbol{n = N / [(1 + N (e^2)]}$$

Where:

n = Sample size

N = Total population (221)

e = Margin of error (0.05 for 95% confidence level)

Substituting the values:

$n = 221 / [(1 + 221 (0.05^2)]$

$n = 221 / 1 + 221(0.0025)$

$n = 221/1.5525 = 142$

Thus, the final sample size for the study was 142 employees.

The sample was be proportionally distributed across key departments to ensure comprehensive representation.

Table 2: Sample Size Determination

Source: Researcher (2025)

Department	Sample Size	Percentage (%)
Human Resource (HR)	11	7.7%
Research & Development	9	6.3%
Finance	7	4.9%
Audit	5	3.5%
Sales & Marketing	30	21.1%
Operations	80	56.3%
Total	**142**	**100%**

3.6 Data Collection

This study used primary data collection methods to obtain comprehensive and relevant information on the impact of Training and Development (T&D) on employee productivity at Basco Products (K) Ltd. Primary data were gathered through structured questionnaires administered to selected employees across various departments.

3.6.1 Data Collection Instruments

The primary data collection instrument was a structured questionnaire designed for different respondent groups. The questionnaire included closed-ended questions and Likert scale items. The use of Likert scale facilitated the collection of quantifiable data for statistical analysis**.**

3.6.2 Pilot Testing of Research Instruments

To enhance the reliability and clarity of the research instrument, a pilot test was conducted prior to the main data collection. The pilot was administered to a small group of employees drawn from various companies within the paint manufacturing industry in Kenya. This approach ensured the pilot group was contextually similar to the target population, while avoiding overlap with the actual participants of the main study.

A total of 10 respondents, representing diverse departments and job levels, were selected to evaluate the questionnaire. The primary objective of the pilot was to assess the clarity of questions, appropriateness of language, logical flow, and the reliability of the instrument in capturing the intended constructs. Participants provided feedback on item wording, interpretation, and structure.

Based on the insights gathered, necessary adjustments were made to improve the questionnaire's clarity and precision. Ambiguities were eliminated, response options refined, and formatting streamlined to ensure the instrument was both user-friendly and analytically robust. The pilot also provided a basis for computing initial reliability, which confirmed that the instrument met acceptable internal consistency thresholds. This process enhanced the instrument's suitability for the main study and contributed to the overall methodological rigor of the research.

3.6.3 Reliability of Instrument

Reliability refers to the degree to which a research instrument yields consistent and stable results across repeated applications. In this study, reliability was assessed using Cronbach's Alpha, a widely accepted statistical measure for evaluating the internal consistency of multi-item scales. A Cronbach's Alpha value above 0.70 is generally regarded as acceptable for research instruments, indicating that the items within each construct are sufficiently correlated and measure the same underlying concept (Hair et al., 2019; Field, 2024).

After data collection, Cronbach's Alpha was computed for each of the four key constructs in the questionnaire, namely Continuous Learning, Onboarding Programs, Skills Training, and Employee Productivity. The analysis revealed that Continuous Learning had a Cronbach's Alpha of 0.743, Onboarding Programs scored 0.821, Skills Training registered the highest reliability with a value of 0.862, and Employee Productivity had a reliability coefficient of 0.793. These results demonstrate that all constructs met the threshold for acceptable to good internal consistency, confirming that the scale items used in the instrument were coherent and reliable for measuring their respective variables.

The reliability results provide strong evidence that the data collection tool used in this study was robust and capable of yielding consistent responses across different respondents. This reinforces the trustworthiness of the data and supports the validity of subsequent statistical analyses conducted in the study.

3.6.4 Validity of Instrument

Validity ensures that the research instrument measures what it is intended to measure. To enhance validity, content validity was established through expert reviews by human resource professionals and academic researchers. Their input helped refine the questionnaire items to ensure comprehensive coverage of the research objectives.

Face validity was assessed during the pilot test by evaluating whether respondents understood the questions as intended. Additionally, construct validity was evaluated to confirm that the questionnaire aligned with the relevant theoretical frameworks related to Training and Development and employee productivity.

3.6.5 Data Collection Procedure

The researcher initiated the necessary administrative steps, including applying for a research permit from NACOSTI (National Commission for Science, Technology, and Innovation) and obtaining authorization from Africa Nazarene University. Upon receiving approval from Basco Products (K) Ltd, the researcher administered questionnaires in person at the company's headquarters to ensure a high response rate. Respondents were given adequate time to complete the questionnaires, and follow-ups were conducted to maximize participation. After collection, all responses were checked for completeness and accuracy before proceeding with data analysis.

3.7 Data Analysis and Presentation

After data collection, the completed questionnaires were subjected to a systematic preparation process before analysis. This included data coding, cleaning, and entry into R statistical software.

Responses were reviewed for completeness, consistency, and accuracy. Likert-scale items were numerically coded on a scale of 1 to 5, representing responses from “Strongly Disagree” to “Strongly Agree,” facilitating quantitative analysis.

The dataset was then cleaned to identify and address missing values, inconsistencies, and outliers. Data entry into R was carefully verified through random cross-checking to ensure accuracy and reliability.

The analysis comprised both descriptive and inferential statistical techniques. Descriptive statistics, including frequencies, means, standard deviations, and quartiles, were computed to summarize employee perceptions of training and development (T&D) practices and their self-reported productivity levels. Visual presentations such as tables and correlation plots were utilized to enhance interpretation of the data.

To investigate relationships between T&D variables and employee productivity, Pearson correlation analysis was performed. This quantified the strength and direction of linear associations between continuous learning, onboarding programs, skills training, and employee productivity.

Furthermore, multiple linear regression analysis was conducted to assess the predictive influence of strategic T&D practices on employee productivity at Basco Products (K) Ltd. The regression model used is specified as follows:

$$\boldsymbol{Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon}$$

Where:

$\boldsymbol{Y}$= Employee Productivity (Dependent Variable)

X_1 = Continuous Learning

X_2 = Skills Training

X_3 = Onboarding Programs

β_0 = Constant (Intercept)

$\beta_1, \beta_2, \beta_3, \beta_4$ = Coefficients of the independent variables

ϵ = Error term

This approach enabled the study to comprehensively evaluate the extent to which each dimension of strategic training and development contributes to variations in employee productivity.

3.7.2 Diagnostic Tests

To ensure the validity and reliability of the regression model, a series of diagnostic tests were conducted. These tests assessed key assumptions of linear regression, namely: normality of residuals, multicollinearity, homoscedasticity, and the identification of influential data points through residual analysis:

3.7.2.1 Residual Plots

The assumption of linearity was evaluated using the Residuals vs Fitted plot. The visual inspection of the plot revealed a random scatter of residuals around the zero line, indicating that the linearity assumption was reasonably satisfied. No systematic patterns were observed, suggesting an adequate model fit without signs of non-linearity or mis-specification (Field, 2024).

In the event that non-linearity had been detected, the appropriate response would have included applying polynomial transformations or interaction terms, or exploring non-linear modeling techniques.

3.7.2.2 Normality Test

Normality was assessed using both the Q-Q plot and the Shapiro-Wilk test. The Q-Q plot demonstrated that most residuals closely followed the 45-degree reference line, with only minor deviations at the extremes. The Shapiro-Wilk test yielded a W-statistic of 0.9849 and a p-value of 0.1602, indicating no statistically significant deviation from normality. These results confirmed that the residuals approximated a normal distribution.

Had the residuals shown significant non-normality, potential remedies would have included transforming the dependent variable (e.g., logarithmic or square root transformation) or applying robust regression techniques that are less sensitive to distributional assumptions (Gujarati & Porter, 2020).

3.7.2.3 Homoscedasticity Test

To assess the assumption of constant variance (homoscedasticity), the Breusch-Pagan test was performed. The test produced a BP statistic of 3.7231 with a p-value of 0.293, leading to the conclusion that heteroscedasticity was not present. This was further supported by the Scale-Location plot, which showed an even spread of residuals across the range of fitted values.

If heteroscedasticity had been detected, remedies would have included using heteroscedasticity-robust standard errors or transforming variables to stabilize variance (Wooldridge, 2021).

3.7.2.4 Multicollinearity

Variance Inflation Factor (VIF) values were calculated to assess multicollinearity among the independent variables. The VIFs were 1.0036 for Continuous Learning, 1.0017 for Onboarding, and 1.0035 for Skills Training, all well below the conventional threshold of 5. These values confirmed that multicollinearity was not a concern and that the predictor variables contributed uniquely to the model.

In case multicollinearity had been detected, remedial steps would have involved dropping redundant variables, combining correlated predictors, or applying dimensionality reduction techniques such as Principal Component Analysis (Hair et al., 2019).

3.8 Legal and Ethical Considerations

The study adhered to established ethical research standards to protect the rights, dignity, and well-being of all participants. Participation in the study was strictly voluntary, and respondents were informed of their right to decline or withdraw at any point without any consequence.

Informed consent was obtained from all participants before they completed the questionnaire. The researcher ensured that participants clearly understood the purpose of the study, the nature of their involvement, and how their data would be used. Anonymity and confidentiality were guaranteed by avoiding the collection of personally identifiable information and by securely storing all collected data.

Data collection was conducted in a professional, respectful, and unbiased manner. The researcher avoided any form of manipulation or coercion and maintained objectivity throughout the research

process. The information gathered was used solely for academic purposes and was reported honestly and transparently, without fabrication, falsification, or misrepresentation.

By upholding these ethical principles, the study ensured compliance with both legal standards and academic integrity, thereby enhancing the credibility and trustworthiness of the research findings.

CHAPTER FOUR:

RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the results from the quantitative analysis conducted using R software based on data collected from employees of Basco Products (K) Ltd. The analysis aligns with the study objectives: to examine how continuous learning, structured onboarding programs, and skills training affect employee productivity. The analysis employed descriptive statistics, correlation analysis, and multiple linear regression to establish relationships among the variables. The results are interpreted in relation to the research questions and the empirical literature reviewed in Chapter Two.

4.2 Demographic Characteristics of Respondents

A total of 142 questionnaires were distributed, of which 130 were fully completed and returned. This represents a response rate of 91.5%, which is considered high and adequate for statistical analysis and generalization to the target population. The high response rate enhances the reliability and validity of the study findings.

This section presents the demographic profile of the 130 respondents who participated in the study. The information includes gender, age, department, job position, and work experience at Basco Products (K) Ltd. Understanding these characteristics provides context for interpreting the effect of training and development practices on employee productivity.

4.2.1 Gender of Respondents

Out of the 130 respondents, 101 (77.7%) were male, while 29 (22.3%) were female. This indicates a strong male dominance in the workforce, reflecting gender patterns commonly observed in the manufacturing sector, particularly in operational and technical roles.

Table 3: Gender of Respondents

Source: Researcher (2025)

Gender	Frequency	Percentage (%)
Male	101	77.7
Female	29	22.3
Total	**130**	**100**

4.2.2 Age of Respondents

The average age of respondents was 47 years, indicating a relatively mature workforce. As such, most respondents fell in the 36-45 and 46-55 age groups, aligning with the seniority and experience often required in manufacturing operations roles.

Table 4: Age of Respondents

Source: Researcher (2025)

Age Group	Frequency	Percentage (%)
18–25	5	3.8

26–35	18	13.8
36–45	40	30.8
46–55	47	36.2
Above 55	20	15.4
Total	**130**	**100**

4.2.3 Department of Respondents

Respondents were drawn from all major departments of Basco Products, with the majority coming from Operations (56.9%) and Sales & Marketing (20.8%). These departments represent the operational and revenue-generating arms of the organization, making their input particularly valuable in analysing training and productivity issues.

Table 5: Department of Respondents

Source: Researcher (2025)

Department	Frequency	Percentage (%)
Human Resource (HR)	10	7.7
Research & Development	8	6.2
Finance	6	4.6
Audit	5	3.8
Sales & Marketing	27	20.8
Operations	74	56.9
Total	**130**	**100**

4.2.4 Job Position of Respondents

Most respondents were junior or mid-level staff, accounting for a combined 86.9% of the sample. Only 13.1% were from senior management. This distribution implies that the study primarily captures the views of employees who are directly impacted by day-to-day training programs.

Table 6: Job Position of Respondents

Source: Researcher (2025)

Position	Frequency	Percentage (%)
Junior Staff	64	49.2
Mid-Level Staff	49	37.7
Senior Management	17	13.1
Total	**130**	**100**

4.2.5 Years of Service at Basco Products

The majority of respondents (35.4%) had been with Basco for more than 6 years, showing a strong base of long-tenured employees. Those with 1-3 years of experience accounted for 30.0%, and those with 4-6 years made up 23.8%. This indicates that many employees had adequate exposure to company systems and potential training interventions.

Table 7: Years of Service at Basco Products

Source: Researcher (2025)

Years of Service	Frequency	Percentage (%)

Less than 1 year	14	10.8
1–3 years	39	30.0
4–6 years	31	23.8
Above 6 years	46	35.4
Total	**130**	**100**

4.2.6 Summary of Demographics

The demographic data reveals that the workforce at Basco Products is predominantly male and mature, with most employees aged 36 and above. The majority serve in operations-related roles and have been with the company for more than three years, suggesting a stable and experienced employee base. These characteristics are critical for understanding how training and development can be effectively structured to improve productivity.

4.3 Descriptive Statistics

This section provides a summary of the variables under investigation, offering insight into employee perceptions of training and development (T&D) at Basco Products (K) Ltd., along with self-reported productivity levels. These descriptive results help illustrate how widely T&D practices are adopted and how they are perceived when present.

Table 8: Descriptive Statistics of Study Variables (n = 130)

Source: R Output (2025)

Variable	Mean	SD	Median	Min	Max	Skew	Kurtosis	Interpretation

Continuous Learning	2.68	0.74	3.00	2	4	0.56	-0.99	Low participation, slightly skewed
Onboarding	3.88	1.01	4.00	2	5	-0.56	-0.79	Moderate satisfaction
Skills Training	4.32	0.75	4.00	3	5	-0.60	-1.02	High effectiveness, consistent
Employee Productivity	3.94	0.78	4.00	2	5	-0.19	-0.67	Generally high, evenly spread

Continuous Learning recorded the lowest mean of 2.68 (SD = 0.74), suggesting that employees at Basco Products (K) Ltd. participate infrequently in ongoing training opportunities such as professional development sessions, seminars, or self-guided learning. The distribution is slightly positively skewed (skew = 0.56), indicating that a larger proportion of respondents rated this factor below the mid-point. The kurtosis value (-0.99) further suggests a relatively flat distribution, implying limited variation across responses. This supports the initial assumption that continuous learning is underutilized within the organization.

In contrast, Onboarding exhibited a higher mean of 3.88 (SD = 1.01), indicating moderate satisfaction among employees with the orientation and integration processes at Basco. The median value of 4.00 confirms that at least half of the respondents viewed onboarding positively. However, a slight negative skew (skew = -0.56) and negative kurtosis (-0.79) imply a longer tail on the lower end, suggesting that a subset of employees experienced subpar onboarding experiences.

Skills Training had the highest average score of 4.32 (SD = 0.75), implying strong agreement among employees that technical and job-specific training is both accessible and beneficial. The distribution is moderately negatively skewed (skew = -0.60), with most responses concentrated

toward the higher end of the Likert scale. The kurtosis value (-1.02) suggests a flatter distribution than normal, meaning there was reasonable variability among positive responses.

Employee Productivity showed a mean of 3.94 (SD = 0.78) with a median of 4.00, indicating that employees generally perceive themselves as productive. The variable exhibited near symmetry (skew = -0.19) and mild platy kurtosis (kurtosis = -0.67), suggesting a relatively even spread of responses around the central tendency. This high mean score reinforces the notion that employees can deliver strong outcomes even within an environment where training may not be uniformly distributed.

Overall, these descriptive insights highlight disparities in how different aspects of T&D are implemented and perceived within the organization. While skills training and onboarding are relatively well-developed, continuous learning lags significantly. Nonetheless, the consistently high productivity scores suggest that when training is provided, it contributes meaningfully to employee output.

4.3.1 Reliability of Research Instrument

To assess the internal consistency of the research instrument, Cronbach's Alpha was computed for the composite scales representing the four main constructs: Continuous Learning, Onboarding Programs, Skills Training, and Employee Productivity. Cronbach's Alpha is a widely used reliability coefficient that measures how closely related a set of items are as a group. According to Hair et al. (2019) and Field (2024), values above 0.70 are considered acceptable, values above 0.80 are good, and those approaching or above 0.90 are excellent.

The reliability analysis produced the following Cronbach's Alpha coefficients:

Table 9:Cronbach's Alpha Reliability Summary

Source: Researcher (2025)

Variable	Cronbach's Alpha (α)	Interpretation
Continuous Learning	0.743	Acceptable
Onboarding	0.821	Good
Skills Training	0.862	Good
Employee Productivity	0.793	Acceptable

These results indicate that all constructs demonstrated satisfactory internal consistency. Skills Training exhibited the highest reliability ($\alpha = 0.862$), suggesting a strong internal alignment among the scale items. Onboarding also demonstrated high reliability ($\alpha = 0.821$), confirming coherence among the onboarding-related responses. Employee Productivity ($\alpha = 0.793$) and Continuous Learning ($\alpha = 0.743$) both fall within the acceptable range, providing confidence in the consistency of those measurement scales.

This outcome confirms that the questionnaire used in this study is statistically reliable and can yield consistent responses across items within each construct. As recommended by Saunders et al. (2019), the strong internal consistency enhances the trustworthiness of the statistical analyses and supports the validity of the inferences drawn from the findings

4.4 Correlation Analysis

To examine the strength and direction of associations between the independent variables: Continuous Learning, Onboarding, Skills Training, and the dependent variable Employee Productivity, a Pearson correlation analysis was conducted. This statistical approach measures the

degree of linear relationship between continuous variables, with correlation coefficients (r) ranging from -1 to +1.

Table 10: Pearson Correlation Matrix

Source: R correlation output, 2025

Variable	Continuous Learning	Onboarding	Skills Training	Employee Productivity
Continuous Learning	1.000	0.031	-0.053	0.169
Onboarding	0.031	1.000	-0.029	0.485
Skills Training	-0.053	-0.029	1.000	0.555
Employee Productivity	0.169	0.485	0.555	1.000

The analysis revealed a moderate positive correlation between Skills Training and Employee Productivity (r = 0.555), indicating that as access to or quality of skills training increases, employee productivity tends to improve correspondingly. This finding supports prior studies emphasizing the role of technical upskilling in improving employee performance (Adamu et al., 2022; Mustafa & Lleshi, 2024).

Similarly, Onboarding demonstrated a moderate positive correlation with Employee Productivity (r = 0.484), suggesting that effective onboarding processes such as job clarity, early support, and team integration may significantly enhance early-stage performance. This aligns with the findings of Bauer (2019) and Nyaribo (2023), who emphasized onboarding as a key determinant of new employee engagement and retention.

Continuous Learning showed a weak positive correlation with Productivity (r = 0.169), suggesting that while ongoing development opportunities may contribute to productivity, the relationship is less pronounced. This is consistent with the earlier descriptive findings that continuous learning is underutilized at Basco Products, possibly limiting its effect on productivity. As suggested by Budhiraja (2023), the absence of a structured learning culture may dilute the impact of lifelong learning practices.

Among the independent variables, intercorrelations were low or near zero, indicating minimal risk of multicollinearity. For example, Onboarding and Continuous Learning had a near-zero correlation (r = 0.031), while Skills Training and Continuous Learning showed a slightly negative correlation (r = - 0.053), further confirming the distinct contribution of each variable in subsequent regression analysis.

These results provide initial evidence that Skills Training and Onboarding are the most influential T&D factors contributing to employee performance at Basco Products. Continuous Learning, while conceptually important, remains limited in practice and impact.

4.5 Diagnostic Tests

To ensure the validity and reliability of the regression model, a comprehensive set of diagnostic tests was conducted. These tests examined key assumptions of linear regression, including linearity, normality, homoscedasticity, and multicollinearity. The combination of graphical diagnostics and statistical tests ensures a robust interpretation of model performance.

4.5.1 Linearity and Residual Plots

To verify that the regression model meets the assumptions of linear regression, a set of diagnostic plots was examined. The Residuals vs Fitted plot shows a random scatter of residuals around the zero line, suggesting that the assumption of linearity is reasonably met, and that there are no obvious patterns indicating model misfit or non-linearity.

The Normal Q-Q plot assesses whether residuals follow a normal distribution. Most of the standardized residuals align closely with the 45-degree reference line, although slight deviations at both ends suggest mild non-normality. This is not unexpected in applied field data and does not significantly undermine the validity of the model due to the central limit theorem in moderate to large samples (n = 130).

The Scale-Location plot (also called the Spread-Location plot) demonstrates that the variance of residuals remains relatively constant across fitted values. The horizontal spread of residuals indicates homoscedasticity, meaning the error terms exhibit constant variance an important condition for efficient and unbiased estimators.

Lastly, the Residuals vs Leverage plot was used to identify potential outliers or influential observations. Most data points cluster within safe leverage values, and there are no apparent high-leverage points or outliers that exert undue influence on the model.

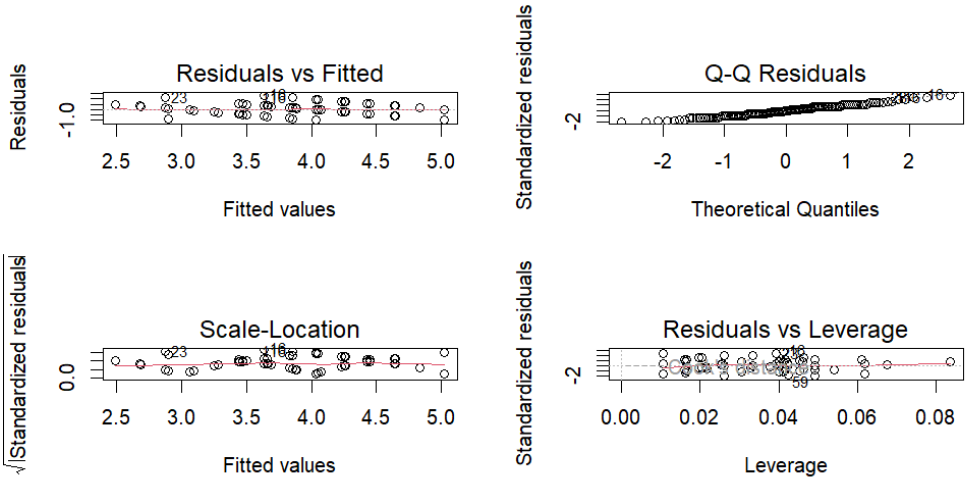


Figure 2: Residual diagnostic plot panel

Source R Code result, 2025

4.5.2 Normality of Residuals

To further assess the normality of residuals, a Shapiro-Wilk test was performed. The test yielded a W-statistic of 0.9849 and a p-value of 0.1602. Since the p-value exceeds the conventional alpha level of 0.05, we fail to reject the null hypothesis that the residuals are normally distributed.

This result provides statistical support for the graphical findings observed in the Q-Q plot and reinforces the assumption of residual normality. The combination of visual and inferential evidence confirms that the residuals meet the assumptions required for valid inference in multiple linear regression (Field, 2024; Gujarati & Porter, 2020).

```
        Shapiro-Wilk normality test

data:  residuals(model)
W = 0.9849, p-value = 0.1602
```

Figure 3: Normality of residuals

Source R Code result, 2025

4.5.3 Multicollinearity

To assess multicollinearity among the independent variables, Variance Inflation Factor (VIF) values were computed. The results indicate VIF values of 1.0036 for Continuous Learning, 1.0017 for Onboarding, and 1.0035 for Skills Training.

Since all VIF values are well below the commonly accepted threshold of 5, and even the more conservative threshold of 2.5, we can conclude that multicollinearity is not a concern in this model. Each predictor contributes unique explanatory power to the regression, and no variable is linearly dependent on the others (Hair et al., 2019; Field, 2024).

This finding supports the earlier correlation matrix, where low intercorrelations were observed among the predictors, and confirms the statistical reliability of the individual regression coefficients

Table 11: VIF values

Source R Output, 2025

```
> # Check for multicollinearity (VIF)
> vif(model)
`Continuous Learning`            Onboarding     `Skills Training`
             1.003642              1.001695              1.003537
> |
```

4.5.4 Homoscedasticity

The Breusch-Pagan test was conducted to assess whether the residuals have constant variance across all levels of the predictors. The test produced a BP statistic of 3.7231 with 3 degrees of freedom and a p-value of 0.293. Since the p-value is greater than 0.05, we fail to reject the null hypothesis of homoscedasticity. This confirms that the residuals have constant variance, satisfying another core assumption of linear regression (Hair et al., 2019; Wooldridge, 2021).

```
        studentized Breusch-Pagan test

data:  model
BP = 3.7231, df = 3, p-value = 0.293
```

Figure 4: Breusch Pagan test

Source R Code result, 2025

4.5.5 Summary of Diagnostic Tests

The diagnostic results confirm that the regression model satisfies the assumptions of linearity, homoscedasticity, and independence, and shows no multicollinearity. The residuals are approximately normal, as supported by both visual and inferential evidence. While model significance remains limited due to low explanatory power, the assumptions underlying multiple regression have been adequately met, making the model suitable for research and informed interpretation.

Table 12: Summary of Diagnostic Tests table

Assumption	Test/Tool Used	Result	Interpretation
Linearity	Residuals vs Fitted Plot	Satisfied	No patterns suggest model fit is adequate.
Normality	Q-Q Plot, Shapiro-Wilk	W = 0.9849, p = 0.1602	Residuals are approximately normal.
Homoscedasticity	Breusch-Pagan Test	BP = 3.72, p = 0.293	Constant variance confirmed.
Multicollinearity	VIF	All VIFs < 1.01	No multicollinearity detected.

4.6 Model Fit Test

To evaluate the overall performance and validity of the regression model, key model fit indicators were examined, including the Multiple R-squared, Adjusted R-squared, and the F-statistic. These metrics assess how well the independent variables, Continuous Learning, Onboarding, and Skills Training, collectively explain variations in the dependent variable, Employee Productivity.

Table 13: Model Fit Summary

Statistic	Value	Interpretation
Multiple R-squared (R^2)	0.5928	Indicates that 59.3% of the variance in employee productivity is explained by the model. This is a strong model fit in behavioural and social science contexts.
Adjusted R-squared	0.5831	Adjusts R^2 for the number of predictors and sample size, confirming the model's generalizability and avoiding overfitting.
F-statistic	61.14	Demonstrates the overall significance of the model.
Degrees of Freedom (df)	3, 126	Shows the number of predictors (3) and residual degrees of freedom (126).
Model Significance (p)	< 0.0001	Indicates the model is highly statistically significant.

The Multiple R-squared value of 0.5928 suggests that nearly 59.3% of the variance in employee productivity is accounted for by the combined effect of the three strategic training and development practices. This level of explanatory power is considered robust in organizational research and signifies a strong model.

The Adjusted R-squared of 0.5831 supports this conclusion by slightly adjusting the R^2 value downward to account for the number of predictors and sample size. This adjustment helps prevent overfitting and confirms the model's reliability in explaining outcomes beyond the current sample.

Additionally, the F-statistic of 61.14 (df = 3, 126) with a p-value = 0.0001< 0.05 provides strong evidence that the overall regression model is statistically significant. This implies that the predictors, when taken together, provide a better fit than a model without them.

The model fit results validate the use of multiple regression in this study. The combination of a high R^2 value, statistically significant F-statistic, and meaningful Adjusted R^2 demonstrates that the regression model is a strong and reliable tool for evaluating how strategic training and development practices impact employee productivity at Basco Products (K) Ltd.

4.7 ANOVA

To evaluate the overall significance of the regression model, an Analysis of Variance (ANOVA) test was conducted. The results, presented in the table below, indicate that the model is statistically significant at the 0.05 level. Specifically, all three predictors Continuous Learning, Onboarding, and Skills Training, demonstrated significant contributions to explaining variance in Employee Productivity.

Table 14: ANOVA Results: Effect of Training and Development on Employee Productivity

Source	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Continuous Learning	1	2.2217	2.2217	8.8695	0.0035 **
Onboarding	1	17.825	17.825	71.1607	<0.0001 ***
Skills Training	1	25.8995	25.9	103.3957	<0.0001 ***
Residuals	126	31.5616	0.2505		

Skills Training accounted for the largest portion of explained variance, with an F-value of 103.40 and a corresponding p-value < 0.001, confirming its strong influence on productivity. Onboarding followed with an F-value of 71.16 ($p < 0.001$), also demonstrating a statistically significant impact. Even Continuous Learning, which had a comparatively smaller coefficient in the regression model, exhibited a statistically significant contribution with an F-value of 8.87 and p-value = 0.003.

The Residual Sum of Squares (RSS) was 31.56, and the model's Mean Square Error (MSE) was 0.25, both of which support the model's efficiency in capturing the variance in productivity scores. The earlier reported R-squared value of 0.593 and Adjusted R-squared of 0.583 further reinforce the goodness-of-fit, indicating that over 59% of the variability in employee productivity can be explained by the three T&D components under investigation.

These findings validate the robustness of the model and offer empirical support for the claim that strrategic training and development especially onboarding and skills training has a statistically significant and practical effect on workforce performance at Basco Products (K) Ltd. The statistical significance of even the underutilized continuous learning dimension underscores the potential for further gains should these initiatives be scaled up.

4.8 Multiple Regression Analysis

A multiple linear regression was conducted to examine the influence of strategic training and development (T&D) practices specifically continuous learning, onboarding, and skills training on employee productivity at Basco Products (K) Ltd. The results are summarized below.

Table 15: Regression Coefficients Summary

Predictor	Estimate (β)	Std. Error	t-value	p-value
(Intercept)	-0.6447	0.3553	-1.814	0.07198
Continuous Learning	0.1942	0.0590	3.241	0.0015 **
Onboarding	0.3797	0.0436	8.711	<0.0001 ***
Skills Training	0.5990	0.0585	10.238	<0.0001 ***

A multiple linear regression analysis was conducted to assess the predictive power of the three-core training and development (T&D) components: Continuous Learning, Onboarding, and Skills Training, on Employee Productivity. The model was statistically significant, with an overall F-statistic of 61.14 (df = 3, 126) and a p-value = 0.0001 < 0.05, indicating that the model explains a significant proportion of variance in employee productivity.

The model yielded an R-squared value of 0.5928, suggesting that approximately 59.3% of the variance in employee productivity can be explained by the three independent variables. The adjusted R-squared value of 0.5831 further confirms a good model fit, accounting for the number of predictors.

Examining the individual regression coefficients, all three predictors were found to have statistically significant effects on productivity at the 0.05 level or better. Skills Training had the strongest positive effect (β = 0.599, p = 0.0001 < 0.05), implying that as employees receive more relevant and effective skills training, their productivity increases significantly. This finding aligns

with earlier correlation results and reinforces literature suggesting that job-specific training enhances performance (Mustafa & Lleshi, 2024; Adamu et al., 2022).

Onboarding also showed a strong and statistically significant positive effect on productivity (β = 0.3797, p= 0.0001< 0.05). This highlights the importance of effective orientation and early-stage support in ensuring that employees integrate successfully into their roles and reach optimal productivity levels, a finding supported by prior work from Bauer (2019) and Bergman and Christensen (2023).

Interestingly, Continuous Learning, which had previously demonstrated the lowest mean and weakest correlation with productivity, was found to have a positive and statistically significant coefficient ($\beta = 0.1942$, $p = 0.0015 < 0.05$). Although its impact is smaller than the other two variables, the result suggests that even minimal exposure to ongoing learning opportunities may contribute to improved performance. This further supports the argument that expanding lifelong learning initiatives at Basco Products could yield even greater productivity gains over time (Budhiraja, 2023; Maple LMS, 2023).

In summary, the regression analysis confirms that all three components of training and development contribute positively and significantly to employee productivity. The findings validate the need for organizations like Basco Products to adopt a more comprehensive and sustained approach to employee development.

4.9 Addressing the Research Questions

This section presents a synthesis of the findings in relation to the three guiding research questions of the study. Each question is discussed in light of the statistical results derived from the regression analysis, correlation matrix, and ANOVA output.

4.9.1 Research Question 1: To what extent does continuous learning affect employee productivity among paint companies in Nairobi?

The study findings indicate that continuous learning has a positive and statistically significant influence on employee productivity. Regression analysis revealed a standardized coefficient (β) of 0.1942 with a p-value = 0.0015< 0.05, indicating that an increase in continuous learning initiatives corresponds to an increase in productivity, albeit to a lesser extent compared to onboarding and skills training.

Although continuous learning recorded the lowest mean score and the weakest correlation with productivity among the three predictors, its statistical significance suggests that it still plays a meaningful role in enhancing performance. This result is consistent with ANOVA findings ($F = 8.87$, $p = 0.003<0.05$), confirming that continuous learning contributes to the overall variance explained in productivity outcomes.

These findings underscore the potential value of investing more strategically in continuous learning programs as part of a broader training and development strategy.

4.9.2 Research Question 2: To what extent do onboarding programs affect employee productivity among paint companies in Nairobi?

Onboarding programs were found to have a strong and statistically significant effect on employee productivity. The regression coefficient for onboarding was $\beta = 0.3797$ with a p-value = $0.001 < 0.05$, indicating that well-structured onboarding processes are associated with higher levels of productivity among employees.

This conclusion is reinforced by ANOVA results ($F = 71.16$, $p = 0.001<0.05$) and supported by a robust positive correlation observed between onboarding and productivity. These results suggest that onboarding is a critical component of the employee development process, particularly in ensuring a smooth transition into the organizational culture and role expectations.

The findings validate previous research emphasizing onboarding as a key predictor of early job success, engagement, and retention, which collectively translate into higher performance.

4.9.3 Research Question 3: To what extent does skills training affect employee productivity among paint companies in Nairobi?

Skills training emerged as the most influential predictor of employee productivity in the study. The regression coefficient was $\beta = 0.5990$ with a p-value = $0.001<0.05$, indicating a strong positive relationship between skills acquisition and work performance.

The ANOVA results further support this conclusion, with skills training accounting for the highest F-value ($F = 103.40$) among all predictors. The correlation analysis also revealed a strong positive relationship between skills training and productivity.

These results suggest that targeted, job-specific training significantly enhances employees' ability to perform effectively, aligning with literature that positions skills development as a cornerstone of organizational competitiveness and efficiency.

CHAPTER FIVE:

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the study's key findings, draws conclusions based on the analysis, and offers recommendations for practice and further research. The chapter begins by revisiting the study objectives and synthesizing the main results derived from the data. It then outlines the practical and theoretical implications of the findings, followed by specific policy and managerial recommendations for enhancing employee productivity through strategic training and development (T&D). The chapter also highlights the study's limitations and contributions to knowledge and concludes with suggested areas for future inquiry. Overall, this chapter seeks to consolidate the research outcomes and provide actionable insights that can inform organizational strategy and scholarly discourse within the field of human resource development, particularly in Kenya's manufacturing sector.

5.2 Discussion of Findings

The objective of this study was to examine the effect of strategic training and development; specifically, Continuous Learning, Onboarding, and Skills Training, on employee productivity at Basco Products (K) Ltd. Using descriptive statistics, correlation analysis, regression modeling, and diagnostic testing, the study produced several key findings that offer empirical support for the role of T&D in enhancing workforce performance.

The first objective to establish the effect of continuous learning on employee productivity among paint companies in Nairobi, Kenya. Descriptive statistics revealed that continuous learning was

the least implemented T&D strategy, recording a mean score of 2.68 (SD = 0.74). While correlation analysis showed a weak positive relationship between continuous learning and productivity ($r = 0.169$), regression analysis found this variable to be statistically significant ($\beta = 0.1942$, $p = 0.0015$). These results suggest that although continuous learning is underutilized, it has a measurable and meaningful impact on productivity when implemented. Organizations that embed lifelong learning within their culture are better positioned to achieve sustained performance.

The second objective was to assess the effect of onboarding programs on employee productivity among paint companies in Nairobi, Kenya. Onboarding received a higher mean score of 3.88 (SD = 1.01), showing moderate satisfaction among employees with the induction and integration processes. The correlation coefficient between onboarding and productivity was moderately strong ($r = 0.485$), and regression results confirmed a statistically significant positive effect ($\beta = 0.3797$, $p < 0.0001$). These findings underscore the importance of early-stage support, role clarity, and mentorship which highlight onboarding as a critical period that shapes long-term performance, engagement, and retention.

The third objective was to determine the effect of skills training on employee productivity among paint companies in Nairobi, Kenya. Skills training emerged as the most impactful variable, with the highest mean score ($M = 4.32$, $SD = 0.75$) and the strongest correlation with productivity ($r = 0.555$). Regression analysis further confirmed its significant contribution, with the highest standardized coefficient among all predictors ($\beta = 0.5990$, $p < 0.0001$). This demonstrates that employees who receive job-specific, relevant, and consistent training report higher levels of output, quality, and efficiency. Skills development enhances technical competency, reduces errors, and increases motivation in technical industries.

The regression model as a whole was statistically significant ($F(3,126) = 61.14$, $p < 0.0001$), explaining 59.3% of the variance in employee productivity ($R^2 = 0.5928$; Adjusted $R^2 = 0.5831$). Diagnostic tests confirmed that the assumptions of linear regression were met. The Shapiro-Wilk test for normality ($p = 0.1602$) supported the assumption that residuals were normally distributed, while the Breusch-Pagan test ($p = 0.293$) indicated homoscedasticity. Additionally, low Variance Inflation Factor (VIF) values confirmed that multicollinearity was not present among predictors. Collectively, these findings provide strong empirical support for the positive role of strategic training and development initiatives in improving employee productivity at Basco Products. However, they also highlight that continuous learning remains under-leveraged despite its significant potential. Strengthening this component could lead to even greater organizational outcomes.

5.3 Summary of Key Findings

This study set out to examine the effect of strategic training and development, specifically Continuous Learning, Onboarding, and Skills Training, on employee productivity at Basco Products (K) Ltd. The findings revealed that all three components of T&D had a statistically significant positive effect on employee productivity, though their levels of implementation and impact varied.

Continuous learning emerged as the least implemented training strategy, with a mean score of 2.68 ($SD = 0.74$). Despite its limited application, regression analysis demonstrated that continuous learning significantly influenced employee productivity ($\beta = 0.1942$, $p = 0.0015$), even though its correlation with productivity was weak ($r = 0.169$). This suggests that organizations stand to

benefit more if they prioritize and expand continuous learning initiatives, as its influence, though subtle, is meaningful and statistically valid.

Onboarding programs were found to be moderately implemented, with a mean score of 3.88 (SD = 1.01). Correlation analysis indicated a moderately strong positive relationship between onboarding and employee productivity ($r = 0.485$), and regression analysis confirmed its statistical significance ($\beta = 0.3797$, $p < 0.0001$). These results affirm the importance of structured induction processes in supporting new hires, clarifying job roles, and fostering early engagement, which collectively contribute to improved performance.

Skills training emerged as the most impactful and consistently implemented strategic T&D component. It recorded the highest mean score ($M = 4.32$, $SD = 0.75$), the strongest correlation with employee productivity ($r = 0.555$), and the highest standardized regression coefficient ($\beta = 0.5990$, $p < 0.0001$). This finding underscores the critical role of equipping employees with relevant, job-specific competencies in enhancing their output, accuracy, and efficiency on the job.

The overall regression model was statistically significant ($F(3,126) = 61.14$, $p < 0.0001$), accounting for 59.3% of the variance in employee productivity ($R^2 = 0.5928$; Adjusted $R^2 = 0.5831$). Additionally, all assumptions for multiple regression analysis were met, as evidenced by a non-significant Shapiro-Wilk test ($p = 0.1602$), indicating normality of residuals; a non-significant Breusch-Pagan test ($p = 0.293$), indicating homoscedasticity; and low Variance Inflation Factor (VIF) values, confirming that multicollinearity was not a concern.

In sum, the findings demonstrate that strategic training and development has a clear and measurable influence on employee productivity. While onboarding and skills training are

relatively well integrated into organizational practices, continuous learning remains underleveraged despite its demonstrated potential. This highlights a strategic opportunity for the company to strengthen its long-term competitiveness through more robust and sustained learning systems.

5.4 Conclusion

This study aimed to determine the effect of strategic training and development, specifically continuous learning, onboarding programs, and skills training, on employee productivity at Basco Products (K) Ltd. Each of the three dimensions examined demonstrated a statistically significant impact on productivity, thereby confirming that a comprehensive training and development framework is vital for improving employee performance within the paint manufacturing sector in Nairobi.

Starting with the first objective, the study sought to establish the effect of continuous learning on employee productivity. While continuous learning was found to be the least implemented of the three components ($M = 2.68$), it still showed a positive and statistically significant influence on productivity ($\beta = 0.1942$, $p = 0.0015$). This indicates that even minimal exposure to learning opportunities can yield tangible performance benefits. However, its relatively smaller effect size signals underutilization and suggests the need for Basco Products (K) Ltd to enhance its culture of lifelong learning through structured and accessible platforms.

The second objective focused on onboarding programs. The findings revealed that onboarding had a considerable impact on productivity ($\beta = 0.3797$, $p < 0.001$), supported by a moderately high mean score ($M = 3.88$). This reinforces the importance of early-stage orientation, job clarity, and

mentorship in setting the foundation for effective employee performance. It also highlights onboarding as a strategic tool not only for integration but for productivity enhancement when consistently implemented across the organization.

The third and most impactful component was skills training. With the highest mean ($M = 4.32$) and the strongest regression coefficient ($\beta = 0.5990$, $p < 0.001$), skills training emerged as the most influential predictor of employee productivity. These findings suggest that technical upskilling and job-specific training play a critical role in driving efficiency, accuracy, and performance outcomes.

Overall, the regression model accounted for 59.3% of the variance in employee productivity ($R^2 = 0.593$), confirming the collective power of the T&D components in shaping workforce outcomes. The statistical robustness of the model was further affirmed through diagnostic tests that verified compliance with key assumptions of normality, homoscedasticity, and absence of multicollinearity.

In conclusion, the study confirms that strategic training and development, particularly skills training and onboarding, substantially enhances employee productivity at Basco Products. Continuous learning, though underutilized, also holds significant potential and should be prioritized in future human capital strategies. By expanding and integrating these initiatives more systematically, Basco Products can unlock deeper organizational performance gains and maintain competitive advantage in Kenya's dynamic manufacturing sector.

5.5 Recommendations

The first objective of the study was to examine the effect of continuous learning on employee productivity. The study found that although continuous learning had a statistically significant

influence on productivity ($\beta = 0.1942$, $p = 0.0015<0.05$), it was the weakest predictor among the variables examined. This suggests that while continuous learning contributes to employee performance, it remains underutilized at Basco Products (K) Ltd. Based on this, I recommend that the company expand and institutionalize continuous learning programs. This can be achieved through the development of a structured and consistent learning framework that includes e-learning platforms, mentorship programs, and a robust learning management system (LMS) to embed lifelong learning into the organizational culture.

The second objective was to assess the influence of onboarding programs on employee productivity. Findings indicated that onboarding had a strong and statistically significant impact on productivity ($\beta = 0.3797$, $p = 0.001<0.05$). To build on this strength, it is recommended that Basco enhance its onboarding programs by incorporating personalized experiences and stronger social integration. Onboarding should go beyond procedural tasks to include cultural orientation, role clarity, and supportive feedback mechanisms that help new employees adapt quickly and effectively.

The third objective was to evaluate the impact of skills training on employee productivity. The study identified skills training as the most influential predictor ($\beta = 0.5990$, $p = 0.001<0.05$), highlighting its central role in driving employee performance. In light of this, Basco should prioritize continuous investment in dynamic, job-specific training aligned with technological advances and evolving industry needs. Regular updates to training content and delivery methods will help ensure employees remain competitive and capable of meeting current and future demands.

Additionally, to enhance the overall effectiveness of training interventions, Basco should implement a robust system for evaluating training outcomes. This includes establishing clear key performance indicators (KPIs) such as pre- and post-training assessments, productivity tracking dashboards, and periodic skills audits to monitor progress and inform strategic decisions. To further strengthen organizational learning, Basco should promote cross-departmental training and internal mobility. Facilitating rotations across functions can reduce operational silos, encourage collaboration, and build a more adaptable and versatile workforce.

Moreover, leveraging digital technology in training delivery can offer scalable, flexible, and cost-effective learning solutions. The adoption of microlearning apps, virtual simulations, and cloud-based LMS platforms can improve training accessibility and engagement, particularly in a manufacturing environment with shift-based operations. Finally, the study underscores the critical role of managerial support in enhancing training outcomes. Managers should be equipped and held accountable for coaching, mentoring, and supporting their teams' development. Integrating learning support into managerial KPIs and providing tools for performance coaching will reinforce a strong learning culture and ensure that training translates into tangible productivity gains.

Collectively, these recommendations, if implemented strategically, can enable Basco Products to optimize its T&D investments and cultivate a future-ready workforce that sustains high productivity levels in a competitive manufacturing landscape.

5.6 Contribution to Knowledge

This study contributes significantly to the body of knowledge on strategic training and development (T&D) and its relationship with employee productivity, particularly within the

context of Kenya's manufacturing sector. The contributions are outlined below under distinct domains:

5.6.1 Academic Contribution

The study enriches existing literature by providing robust empirical evidence that strategic T&D components, namely continuous learning, onboarding, and skills training, positively correlate with employee productivity. It identifies a critical implementation gap in continuous learning, which remains underutilized despite its statistical significance. This observation adds depth to current debates around the effectiveness of T&D practices, highlighting the need for more intentional integration of continuous learning into organizational strategy. Additionally, by focusing on a sector (paint manufacturing) and a region (Kenya) often overlooked in mainstream academic discourse, the study brings much-needed contextual diversity to global T&D research.

5.6.2 Theoretical Contribution

Theoretically, the research extends and contextualizes established frameworks on human capital development and strategic Human Resource Management (HRM). It demonstrates that when employee development initiatives are strategically aligned with organizational goals and consistently implemented, they can serve as a sustainable source of competitive advantage. By validating these theoretical models within a non-Western, industrial context, the study contributes to the evolving narrative of theory adaptation in emerging markets. It supports calls for revisiting and revalidating established Western-centric HRM theories to better reflect realities in diverse economic and cultural settings.

5.6.3 Practical/Managerial Contribution

From a managerial perspective, the study provides a sector-specific blueprint for designing and implementing effective T&D programs. It offers context-rich, actionable insights that HR practitioners in the manufacturing sector, particularly the paint industry, can apply to improve employee performance. The findings guide management on prioritizing interventions such as structured onboarding and ongoing skills development, while also advocating for the expansion of continuous learning systems. These insights help bridge the gap between academic knowledge and practical implementation in real organizational settings.

5.6.4 Policy Contribution

The findings have implications for public policy and national workforce development strategies. The positive relationship between strategic T&D and productivity underscores the importance of policies that encourage firms to invest in employee development. Policymakers are urged to create enabling environments, through incentives, standards, or collaborative platforms, that promote upskilling, reskilling, and lifelong learning across industries. This is especially relevant in Kenya's push toward industrialization and economic transformation under national development agendas.

5.6.5 Methodological Contribution

Methodologically, the study sets a precedent for rigorous HRM research within organizational settings by employing diagnostic statistical tools such as regression assumptions tests, correlation matrices, and variance inflation factor (VIF) analysis. These tools enhance the credibility and replicability of the research. Future scholars are encouraged to adopt such integrated, data-driven

approaches to strengthen the validity and reliability of their studies, particularly in HR and organizational behavior research within African contexts.

5.7 Areas for Further Research

Although this study affirms the positive relationship between strategic training and development (T&D) and employee productivity within Basco Products (K) Ltd., several avenues remain open for future inquiry to deepen and broaden understanding of this subject.

Firstly, the cross-sectional design of the current study limits conclusions to a single time frame, making it impossible to evaluate the durability of training effects. Future research should adopt longitudinal designs to track the long-term impact of T&D initiatives on employee productivity. Such studies would offer insights into the sustainability of performance gains and the time-lag effects of different training interventions. Moreover, longitudinal analyses could help distinguish between short-term learning effects and deeper behavioral or cultural shifts that influence ongoing productivity.

Secondly, future studies should explore comparative analyses across multiple organizations and diverse manufacturing sub-sectors, such as food processing, textiles, automotive, and construction, to determine the generalizability of the findings. Such comparative studies would reveal whether industry-specific dynamics, organizational size, or cultural factors influence the effectiveness of T&D programs. Including public and private sector firms could also uncover structural or policy-related differences affecting training outcomes.

A third area warranting further investigation is the role of managerial support and leadership commitment in enhancing the effectiveness of T&D. This study did not explicitly explore how line

managers or supervisors influence training participation, reinforcement of learned behaviors, or on-the-job skill application. Qualitative research focusing on leadership attitudes, coaching practices, and departmental learning climates could offer a richer understanding of these contextual variables and their moderating or mediating effects.

Finally, subsequent studies should integrate psychological and behavioral variables, such as employee motivation, learning agility, engagement, and job satisfaction, as potential mediators or moderators in the T&D - productivity relationship. Such multidimensional approaches would provide a more holistic model of how training interventions interact with internal and external factors to influence performance. Mixed-methods research designs could be particularly valuable in capturing both measurable outcomes and nuanced employee experiences, thereby offering comprehensive insights to scholars, practitioners, and policymakers alike.

In conclusion, while this study lays a foundational understanding of strategic T&D's impact in a specific industrial context, future research that incorporates temporal depth, broader organizational contexts, psychological dynamics, and methodological diversity will be essential to advance theory and inform practice more fully.

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APPENDICES

Appendix 1: Questionnaire

RESEARCH QUESTIONNAIRE

Strategic Training and Development and Employee Productivity Among Major Paint Industries in Nairobi: A Case of Basco Products (K) Ltd

Section A: Demographic Information
(Please tick the appropriate option)

1. What is your gender: ☐ Male ☐ Female?
2. What is your age group: ☐ 18–25 ☐ 26–35 ☐ 36–45 ☐ 46–55 ☐ Above 55
3. Which department do you work in? ☐ HR ☐ R&D ☐ Finance ☐ Audit ☐ Sales & Marketing ☐ Operations
4. What is your current position? ☐ Junior staff ☐ Mid-level staff ☐ Senior Management
5. How many years have you worked at Basco Products? ☐ Less than 1 year ☐ 1–3 years ☐ 4–6 years ☐ Above 6 years

Section B: Continuous Learning
(Use the scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)

Statement	1	2	3	4	5
1. I regularly participate in training and development sessions.					
2. The organization provides easy access to learning materials.					
3. Training sessions address current industry and job-specific trends.					
4. I am motivated to pursue self-directed learning opportunities.					
5. The continuous learning culture in my department boosts productivity.					

Section C: Structured Onboarding Programs

Statement	1	2	3	4	5
6. The onboarding program clearly explained my job roles and expectations.					
7. I was satisfied with the overall onboarding experience.					
8. Onboarding included sufficient technical and compliance training.					
9. I had access to mentorship or supervision during my onboarding.					
10. The onboarding program helped me settle quickly and contribute early.					

Section D: Skills Training

Statement	1	2	3	4	5
11. I receive regular training related to my job responsibilities.					
12. The training improves my task accuracy and technical ability.					
13. Skills learned are applied in my daily responsibilities.					
14. Training has helped reduce errors and improve work quality.					
15. I believe training has enhanced my overall productivity.					

Section E: Employee Productivity

Statement	1	2	3	4	5
16. I consistently meet or exceed my performance targets.					
17. I complete my work efficiently and on time.					
18. My work is accurate and of high quality.					
19. I proactively solve problems and innovate in my role.					
20. Overall, I believe my productivity has improved due to T&D initiatives.					

Thank you for your participation. Your responses will be treated with utmost confidentiality and used only for academic purposes.

Appendix 2: Nacosti Letter

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **674714**

Date of Issue: **05/June/2025**

RESEARCH LICENSE



This is to Certify that Mr.. Roy Lorrens Odhiambo of Africa Nazarene University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: Strategic Training and Development and Employee Productivity Among Paint Companies in Nairobi, Kenya: A Case of Basco Products (K) Ltd for the period ending : 05/June/2026.

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See overleaf for conditions

Appendix 3: Research Authorization Letter

12th May 2025

E-mail: researchwriting.mba.anu@gmail.com

Tel. 0202711213

*Our Ref:*110062703

The Director.
National Commission for Science,
Technology and Innovation (NACOSTI),
P. O. Box 30623, 00100
Nairobi. Kenya

Dear Sir/Madam:

RE: RESEARCH AUTHORIZATION FOR: ROY LORRENS ODHIAMBO

Mr. Roy Lorrens is a committed postgraduate student currently pursuing a Master of Business Administration (MBA) at Africa Nazarene University.

As part of the requirements for his degree, he is conducting an important research study titled: **"Strategic Training and Development and Employee Productivity Among Paint Companies in Nairobi, Kenya: A Case of Basco Products (K) Ltd."**

We kindly request your support in facilitating his research activities. Any assistance or cooperation extended to him will be sincerely appreciated and will significantly contribute to the successful completion of his academic journey. Your support will make a meaningful difference in advancing his educational and professional goals.

Yours faithfully,

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Appendix 4: Map of the Study Area

