3.0 Chapter 3: Research Methodology

3.1 Introduction

This chapter outlines the research methodology adopted for this study, which focuses on the design, development, and evaluation of Creatuno, a digital platform aimed at supporting creative professionals in Sierra Leone. The methodology provides a systematic framework for investigating the research problem, gathering and analysing data, and developing a practical technological solution grounded in empirical evidence. Given the applied and solution-oriented nature of the study, the chapter integrates social research methods with software development practices to ensure both academic rigour and practical relevance.

The chapter explains the research design, research approach, population and sampling procedures, data collection methods, research instruments, data analysis techniques, and ethical considerations guiding the study. This structured approach ensures transparency, replicability, and credibility of the research process.

3.2 Research Design

This study employs a mixed-methods research design (MMRD) situated within the broader paradigm of Design Science Research (DSR). The MMRD facilitates the collection, analysis, and integration of both qualitative and quantitative data within a single inquiry. This is paramount for a project that seeks to first understand complex human behaviours and challenges (qualitative) and then measure the prevalence of those challenges and evaluate solution efficacy (quantitative).

The DSR framework, as formalised by Hevner et al. (2004), provides the overarching structure. DSR is fundamentally a problem-solving paradigm that seeks to create and evaluate innovative artefacts—in this case, the Creatuno platform—as a means to address identified organisational or societal problems. This design science orientation shifts the research from purely descriptive or explanatory to constructive and evaluative, focusing on the building and rigorous assessment of a viable solution.

The research design is operationalised through three distinct, yet interconnected and iterative, phases:

- **Exploratory and Requirements Elicitation Phase:** This initial phase is predominantly qualitative. It aims to gain a deep, contextual understanding of the challenges faced by creative professionals in Sierra Leone, their unmet needs, existing workarounds, and their expectations from a digital platform. Methods include semi-structured interviews and focus group discussions (FGDs).
- **Development and Iterative Construction Phase:** Informed by Phase 1, this phase involves the systematic design and development of the Creatuno platform. It follows an **Agile methodology**, allowing for incremental development and the incorporation of continuous feedback. Preliminary findings and prototype features are validated with users in short, iterative cycles (sprints).
- **Evaluation and Assessment Phase:** This final phase employs a mix of methods to evaluate the developed artefact. Quantitative usability testing (e.g., System Usability Scale) and usage analytics are combined with qualitative feedback from pilot users to assess the platform's functionality, usability, relevance, and perceived impact.

This tri-phase design enables methodological triangulation, where findings from one method inform and are cross-verified by another, significantly enhancing the study's overall credibility and the validity of the final design.

3.3 Research Approach and Methodology

The research is guided by a pragmatist research philosophy. Pragmatism, as articulated by scholars like John Dewey, prioritises the research question over adherence to a strict ontological or epistemological dogma. It advocates for the use of multiple methods to best generate knowledge that is practical, actionable, and works in real-world contexts. This philosophy is exceptionally fitting for this study, as the core aim is not to test a universal theory but to solve a concrete, practical problem—the lack of a unified digital ecosystem for creatives in Sierra Leone.

From this philosophical stance flows a mixed-methodological approach:

- **Qualitative Methods** are used to explore the "why" and "how": Why are creatives struggling with visibility? How does the informal economy affect their operations? These methods provide depth, detail, and context.
- **Quantitative Methods** are used to establish the "what" and "how much": What percentage of creatives have consistent internet access? How many prioritise mentorship over portfolio display? These methods provide breadth and generalisability to trends observed in the qualitative data.

Furthermore, the **Agile software development methodology** (specifically Scrum) serves as the operational project management and development framework. It translates the pragmatist philosophy into practice by promoting adaptability, user collaboration, and responsiveness to change—key tenets for ensuring the developed platform remains aligned with empirically derived user needs throughout the project lifecycle.

3.4 Population of the Study

The population of the study is defined as the entire collection of individuals, groups, and organizations that constitute the ecosystem within which the *Creatuno* platform will operate and from which insights must be drawn for its design and evaluation. A precise delineation of this population is critical for establishing the study's scope, ensuring the relevance of data, and defining sampling parameters. For this research, the population is not monolithic but is strategically stratified
into Primary and Secondary populations based on their direct relationship to the platform's core functions and value proposition.

Primary Target Population

The primary population consists of individuals who are the direct end-users and primary beneficiaries of the Creatuno platform. Their lived experiences, needs, and behaviors are the central focus of the investigation.

- **Definition: Actively practicing creative professionals in Sierra Leone.** "Active practice" is operationalized as individuals who have earned

income or pursued sustained non-commercial projects within a creative discipline in the 12 months preceding the study.

- **Key Demographic Focus: Ages 18–35 years.** This cohort represents the most dynamic segment of the workforce, is typically more digitally native, and faces the most acute challenges regarding career establishment, networking, and access to economic opportunities.
- **Disciplinary Composition:** The study intentionally includes a diverse range of disciplines to capture the sector's heterogeneity and test the platform's versatility. Core disciplines include:
    - **Visual & Digital Arts:** Photographers, Graphic Designers, Illustrators, Digital Painters.
    - **Audio & Music:** Musicians (instrumentalists, vocalists), Music Producers, Sound Engineers.
    - **Performance & Film:** Filmmakers, Video Editors, Actors, Dancers, Theatre Practitioners.
    - **Design & Craft:** Fashion Designers, Textile Artists, Product Designers, Artisans with a contemporary market focus.
    - **Literary & Media:** Writers, Poets, Digital Content Creators, Bloggers focusing on arts and culture.
- **Geographic Scope:** While recognizing national distribution, the study focuses on urban and peri-urban hubs with significant creative activity: Freetown (Western Area), Bo, Kenema, and Makeni. This allows for analysis of potential differences in access, challenges, and opportunities between the capital and regional centers.

Secondary Stakeholder Populations

Secondary populations encompass key actors who influence, interact with, or are impacted by the primary population and the platform. Their inclusion is essential for ensuring the platform's design is viable, sustainable, and integrated into the broader creative economy.

1. **Category A: Enablers & Gatekeepers**
    1. **Mentors & Seasoned Professionals:** Individuals with over 5 years of recognized professional success in a creative field. They provide insight into career pathways, skill gaps, and the feasibility of mentorship models.
    2. **Clients & Employers:** This includes small businesses, advertising agencies, event planners, NGOs, corporations, and individual commissioners of creative work. They provide the demand-side perspective on skill needs, hiring challenges, and payment practices.
2. **Category B: Institutional & Support Actors**
    1. **Government & Policy Entities:** Officials from ministries responsible for Youth, Tourism & Cultural Affairs, and Innovation. Their input is crucial for understanding policy alignment and potential for public-sector collaboration.
    2. **Educational Institutions:** Lecturers and department heads from universities, vocational institutes, and art schools. They offer insights on formal training gaps and the transition from education to professional practice.
    3. **Non-Governmental Organizations (NGOs) & Donors:** Local and international organizations supporting creative enterprise, cultural development, or youth employment. They inform understanding of the support landscape and funding mechanisms.
3. **Category C: Infrastructure & Ecosystem Partners**
    1. **Investors & Financial Institutions:** Entities interested in the creative sector's economic potential. Their perspective is vital for designing platform features related to monetization, financial transparency, and investment readiness.
    2. **Technology Service Providers:** Local IT firms, digital marketers, and telecom representatives. They offer practical insights into

infrastructure constraints, data costs, and technical feasibility in the Sierra Leonean context.

Rationale for Population Stratification

This stratified approach serves multiple methodological purposes:

- **Triangulation:** Data from primary users is cross-validated with perspectives from secondary stakeholders. For instance, a creative professional's complaint about "late payments" can be explored from the client's perspective regarding "payment processes and trust."
- **Holistic Design:** A platform that only addresses the needs of creatives in isolation may fail. Understanding the expectations and constraints of clients, mentors, and institutions is necessary to design a viable ecosystem, not just a tool.
- **Sustainability Validation:** Engaging with institutional and financial stakeholders early helps assess the long-term sustainability model for the platform, moving it beyond a conceptual academic project to a potentially implementable solution.

Operational Boundaries and Exclusions

For clarity, the study population *excludes*:

1. Individuals under 18 years of age.
2. Creative professionals who have been entirely inactive (no project or income) for over two years.
3. International creative professionals, as the platform's initial scope is Sierra Leone-specific.
   This focused definition ensures that data collection efforts are targeted, resources are efficiently deployed, and the findings are directly applicable to the platform's core use case.

3.5 Sample Size and Sampling Technique

This section details the strategic plan for selecting participants from the defined population. Given the mixed-methods design, no single sampling technique is

sufficient. Instead, a hybrid, purposive-driven strategy is employed, where the technique and target sample size are deliberately aligned with the specific objectives of each methodological component—prioritizing depth and richness for qualitative elements and breadth and indicator prevalence for the quantitative element.

Overall Sampling Strategy and Philosophy

The overarching strategy is **non-probability sampling**, as the research aims for analytical depth and contextual understanding rather than statistical generalization to the entire national population of creatives. The choice of specific techniques within this paradigm is guided by:

- **Purposeful Selection:** To capture the most information-rich cases relevant to the research problem.
- **Feasibility:** Acknowledging the constraints of researching a semi-formal sector without a pre-existing, complete sampling frame.
- **Triangulation Logic:** Using different sampling methods for different data strands to build a more comprehensive picture.

Sampling for Qualitative Components (Interviews & FGDs)

For the in-depth interviews and focus group discussions, purposive sampling is the core technique.

- **Technique & Justification:** Participants are deliberately selected based on their potential to provide deep, nuanced, and diverse insights into the research questions. This is essential for exploratory research seeking to understand complex phenomena like professional challenges, trust, and digital behaviors.
- **Sub-Technique Application:**
    - For Semi-Structured Interviews, maximum variation sampling is used. The goal is to recruit a wide spectrum of participants across key variables to capture the full range of experiences. The researcher will seek individuals from different creative disciplines, geographic locations (Freetown, Bo, Kenema, Makeni), genders, career stages (emerging,

established), and employment statuses (self-employed, freelance, employed by firm).

    - For Focus Group Discussions, homogeneous sampling is applied. Participants for a single FGD are selected to be similar in a key dimension (e.g., all visual artists, all performers) to create a comfortable environment where they can discuss shared experiences in depth. Different FGDs will cover different discipline clusters.

- **Sample Size Determination:**
    - **Interviews:** A target of **N = 15** is set. This aligns with common qualitative research norms where saturation—the point where new interviews yield little or no new thematic information—is often achieved within this range.
    - **FGDs:** A target of **3 FGDs with 8-10 participants each** (total 24-30) is planned. Three groups are typically sufficient to identify consistent patterns across different sub-groups, and 8-10 participants is an optimal size for manageable, in-depth discussion.
    - **Mentor Interviews:** A separate purposive sample of **N = 5-8** experienced professionals (5+ years) will be drawn from the secondary stakeholder population.

Sampling for the Quantitative Component (Survey)

For the online survey, the primary technique is snowball sampling, supplemented by purposive dissemination.

- **Technique & Justification:** Given the absence of a centralized registry of creative professionals, probability sampling is impractical. Snowball sampling leverages existing social and professional networks. An initial "seed" group of purposively identified creatives (from contacts, social media, and associations) is invited to take the survey and is then asked to share it within their own networks.

- **Sample Size Determination:** A minimum target of **N ≥ 100** completed responses is set. This size is justified for several reasons:
    - It allows for meaningful descriptive statistical analysis (frequencies, percentages, means) with a reasonable degree of stability.
    - It enables basic cross-tabulation analyses (e.g., examining challenges by discipline or location) without cells becoming too small for interpretation.
    - It provides a sufficiently broad scan of the sector to identify major trends and patterns to complement the deep qualitative data.
- **Managing Bias:** The inherent bias of snowball sampling (towards more networked individuals) is acknowledged as a study limitation. To mitigate this, the survey will be disseminated through multiple, diverse seed points (different discipline leaders, geographic hubs, and online forums).

Recruitment and Access

Recruitment will be conducted through:

- **Gatekeepers and Associations:** Contact with leaders of informal creative collectives, arts institutions, and cultural centers.
- **Social Media and Digital Channels:** Targeted advertisements and posts in Facebook groups, Instagram communities, and WhatsApp networks popular with Sierra Leonean creatives.
- **Direct Outreach:** Leveraging the researcher's network for initial contacts.

Summary of Sample Plan

The following table summarizes the integrated sampling plan:

Research Component	Target Sample Size	Sampling Technique	Primary Justification
Semi-Structured Interviews	15 creative professionals	Purposive (Maximum Variation)	To achieve depth and diversity of experiences; data saturation.
Focus Group Discussions	24-30 (3 groups of 8-10)	Purposive (Homogeneous)	To facilitate in-depth, shared discussion within discipline clusters.
Mentor Interviews	5-8 experienced professionals	Purposive	To gain expert insight from seasoned stakeholders.
Online Survey	≥ 100 creative professionals	Snowball / Purposive Dissemination	To obtain broad-based quantitative indicators from the networked population.

3.6 Data Collection Methods

Multiple data collection methods are used to support triangulation and improve the reliability of findings:

1. **Survey Method:** Structured online questionnaires are used to collect quantitative data on challenges, platform usage, feature preferences, and technology access.
2. **Semi-Structured Interviews:** In-depth interviews are conducted to explore individual experiences, motivations, and expectations in greater detail.

3. **Focus Group Discussions:** Group discussions are used to validate findings, encourage collective reflection, and prioritise platform features.
4. **System Evaluation Data:** Usability testing, user feedback, and system analytics are collected during pilot deployment.

These methods collectively provide both breadth and depth of insight into the research problem.

3.7 Research Instruments

This section details the specific tools that were deployed to operationalize the data collection methods. The instruments were designed, piloted, and refined to ensure they effectively captured data aligned with the research objectives. Their implementation followed a structured process to ensure validity, reliability, and ethical compliance.

Structured Questionnaire (Online Survey)

This instrument was successfully administered to collect quantitative and qualitative data from a broad sample of creative professionals.

- **Final Design and Deployment:** The final questionnaire comprised six sections and was built and hosted on Google Forms for its accessibility and mobile-friendly interface. The implemented sections were:
    1. **Informed Consent Page:** A mandatory page detailing the study's purpose, data anonymity, voluntary participation, and researcher contact. Participants had to click "I consent to proceed" to access the survey.
    2. **Section A: Demographic and Professional Profile:** Collected data on age range, gender, primary location (Freetown, Bo, Kenema, Makeni, Other), primary creative discipline, years of experience, and employment type (e.g., self-employed, freelance, employed by organization).
    3. **Section B: Assessment of Professional Challenges:** Utilized a 5-point Likert scale (1=Not a Challenge to 5=Major Challenge) to

measure the perceived severity of 12 pre-identified challenges, including "Finding reliable clients," "Receiving payments on time," "Accessing affordable training," and "Building a professional reputation."

4. **Section C: Digital Literacy and Access:** Employed multiple-choice and frequency scales to assess internet access points, primary devices for work, and usage of existing digital platforms (e.g., Facebook, Instagram, dedicated portfolio sites) for professional activities.
5. **Section D: Feature Prioritization for *Creatuno*:** Presented a list of 15 proposed platform features. Respondents rated the importance of each feature on a 5-point scale (1=Not Important to 5=Extremely Important) and performed a drag-and-drop ranking exercise for the top 5 most critical features.
6. **Section E: Open-Ended Feedback:** Included two optional text boxes: "Please describe any other significant challenge not listed above" and "Any additional suggestions for a platform like *Creatuno*?"

- **Piloting and Refinement:** Prior to full deployment, the questionnaire was piloted with 8 creative professionals. Feedback indicated the need to simplify technical jargon in two feature descriptions and to reduce the initial list of challenges from 15 to 12 to avoid survey fatigue. These adjustments were made for the final version.

Semi-Structured Interview Guide

This guide formed the flexible framework for all in-depth interviews conducted during the exploratory phase.

- **Final Structure and Application:** The guide ensured coverage of key themes while allowing conversational depth. The implemented structure was:
    1. **Opening Protocol:** Standardized introduction with reaffirmation of ethical consent for recording, guaranteed anonymity, and the right to withdraw.

2. **Core Interview Questions:** The following core questions, with associated probes, were used in every interview:
    - "Can you describe your journey as a creative professional in Sierra Leone?" (Probes: Key milestones, turning points, support systems.)
    - "Walk me through your process for securing a typical project, from first contact to final delivery." (Probes: How you find opportunities, negotiation, contracts, payment.)
    - "What are the most significant barriers you face in growing your income or reputation?" (Probes: Examples, emotional impact, coping strategies.)
    - "What does 'professional development' mean to you, and how do you pursue it?" (Probes: Mentorship experiences, training access, skill gaps.)
    - "Imagine an ideal digital tool for your work. What would it do, and how would it change your practice?" (Probes: Specific features, how it solves current pains.)
3. **Closing:** A final invitation: "Is there anything crucial about your experience as a creative professional that we haven't touched on?"

- **Implementation Note:** While the guide provided structure, interviewers were trained to actively listen and follow the participant's narrative, using probes flexibly to explore emerging topics not on the original guide but relevant to the research questions.

Focus Group Discussion (FGD) Guide

This guide facilitated the three focus group discussions, focusing on interactive data generation.

- **Final Agenda and Execution:** Each 90-minute FGD followed this agenda:

1. **Welcome & Ground Rules (10 mins):** Introductions, confidentiality reminder, and establishment of discussion rules (one voice at a time, respect differing views).
2. **Warm-Up Activity (15 mins):** Participants completed the sentence: "A successful creative professional in Sierra Leone needs..." on a card, followed by a quick, anonymous sharing of responses to spark initial thought.
3. **Structured Discussion (50 mins):** Facilitated dialogue around two key themes derived from early interview analysis:
    - Theme 1: **"Trust and Transactions in the Digital Space."**
    - Theme 2: **"The Ideal Mentorship and Learning Model."** Guided questions were used, but the facilitator prioritized mediating participant-to-participant dialogue.
4. **Participatory Co-Design Activity (20 mins):** The core activity involved feature card sorting and dot-voting. Participants were given cards with the 15 features from the survey and asked to: first, collectively group them into categories (e.g., "Must-Have," "Nice to Have," "For Future"); second, use sticky dots to vote for the 3 features they deemed most critical for a first version.
5. **Summary & Validation (5 mins):** The facilitator summarized key consensus points and disagreements heard, asking the group for confirmation or correction ("Did I capture that correctly?").

- **Logistics:** All FGDs were audio-recorded with consent. The card sorting and dot-voting results were photographed as physical artifacts for analysis.

Usability and Pilot Evaluation Instruments

These standardized tools were used to evaluate the functional *Creatuno* prototype.

- **Deployed Evaluation Package:** Each usability test session with a pilot user included:

1. **Pre-Test Questionnaire:** A short form capturing the tester's discipline, self-rated tech-savviness, and frequency of use of similar apps.
2. **Task Scenario Sheet:** Users received 5 key task scenarios printed on paper, such as: "Task 1: Update your profile to show you are available for freelance work," and "Task 3: Find and message a potential mentor in graphic design."
3. **Observation Protocol:** The researcher used a checklist to note task success/failure, time-on-task (using a stopwatch), errors made, and notable verbal comments during the "think-aloud" process.
4. **Post-Test System Usability Scale (SUS):** Immediately after completing the tasks, users completed the standard 10-item SUS questionnaire, providing a quantifiable usability score.
5. **Semi-Structured Debrief:** A short, informal interview based on the questions: "What was the easiest part to use?", "What was the most frustrating?", and "What one thing would you change first?"

3.8 Data Analysis Techniques

Quantitative Data Analysis

Quantitative data collected through surveys is analysed using descriptive statistical techniques, including frequencies, percentages, means, and standard deviations. Feature importance rankings and cross-tabulations are used to identify patterns across demographic variables.

Qualitative Data Analysis

Qualitative data from interviews and focus groups is analysed using thematic analysis. The process involves transcription, coding, theme development, and cross-case comparison. Findings from qualitative analysis are triangulated with quantitative results to ensure consistency and depth of interpretation.

3.9 Ethical Considerations

Ethical principles are observed throughout the research process. Participation is voluntary, and informed consent is obtained from all participants prior to data collection. Participants are assured of confidentiality and anonymity, with identifying information removed during analysis and reporting.

Data is securely stored and used solely for academic purposes. Participants retain the right to withdraw from the study at any stage without penalty. The research adheres to institutional ethical guidelines and best practices for responsible research conduct.

3.10 Chapter Summary

This chapter has detailed the research methodology adopted for the study, outlining the research design, approach, population, sampling strategy, data collection methods, research instruments, data analysis techniques, and ethical considerations. The methodology provides a robust foundation for the system design, implementation, and evaluation presented in subsequent chapters.