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Optical business management strategies for supporting community-based eye health programs

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Abstract

Community-based eye health programs require not only clinical competence but also managerial capacity to support service implementation and program continuity. This study aims to analyze optical business management strategies in supporting community-based eye health programs, identify key managerial factors contributing to the implementation and sustainability of the SESAMA II program, and develop a case-based conceptual framework for socially oriented optical business management. This study employed a document-based qualitative case study design. The empirical materials consisted of SESAMA II activity reports, program documentation, non-participant observation notes, and internal reflective discussion notes. The data were analyzed thematically to identify patterns related to optical service planning, resource management, stakeholder coordination, and program sustainability. The findings indicate four main managerial themes: community-based service planning, operational resource management, strategic stakeholder collaboration, and social value orientation in optical service delivery. These themes suggest that community-based optical service programs depend on the configuration of service design, resource coordination, stakeholder involvement, and social objectives. The study contributes by offering a case-based conceptual understanding of socially oriented optical business management in the context of community-based eye health programs. Rather than presenting a validated causal model, the framework developed in this study provides a context-specific interpretation of how optical business management practices may support community-based service delivery and sustainability-oriented program capacity.

INTRODUCTION

Eye health is an essential component of public health because vision directly affects learning, work participation, mobility, independence, and quality of life. The World Health Organization (WHO, 2019) estimates that at least 2.2 billion people worldwide live with vision impairment, of whom at least 1 billion have conditions that could have been prevented or remain unaddressed. The burden of vision impairment is not merely clinical. Burton et al. (2021) emphasize that avoidable vision loss is closely connected to education, productivity, social inclusion, poverty reduction, and broader development outcomes. Therefore, improving access to eye care should be understood as part of a wider effort to strengthen equitable health systems and support community well-being.

Despite the availability of effective eye care interventions, access to eye health services remains uneven across populations and settings. WHO (2019) identifies several persistent barriers, including inequalities in the coverage and quality of eye care services, shortages of trained eye care personnel, and weak integration of eye care into health systems. In Indonesia, evidence from Rapid Assessment of Avoidable Blindness surveys in 15 provinces indicates that the burden of blindness and visual impairment remains substantial among adults aged 50 years and older, with a countrywide blindness prevalence of 3.0% in this age group (Rif'Ati et al., 2021). These findings suggest that expanding access to eye care requires more than clinical expertise alone; it also requires service models that are reachable, affordable, and sustainable for communities with limited access to formal health facilities.

Refractive and optical services are particularly important within this agenda because uncorrected refractive error remains a major cause of avoidable vision impairment. Through the SPECS 2030 initiative, WHO po-

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sitions spectacle coverage as a global priority and sets a target of a 40-percentage-point increase in effective refractive error coverage by 2030 (Keel & Mueller, 2024). However, increasing spectacle coverage is not simply a matter of providing optical devices. Umaefulam et al. (2024) show that refractive and optical care can be delivered through several community and primary care approaches, including outreach, school-based, and other decentralized service models. These models require appropriate planning, resource allocation, service flow design, and coordination among actors involved in eye care delivery.

Community-based eye health programs offer one practical approach to reducing access barriers, particularly for underserved populations. Community engagement is important because local communities are not passive recipients of services; they can contribute to needs identification, service planning, health promotion, resource mobilization, and monitoring of program relevance. Shukla (2022) argues that meaningful partnerships between eye health service providers and communities can improve access by bringing services closer to people, reducing service costs, and increasing the efficiency of eye health systems. Similarly, Du Toit et al. (2013) emphasize that integrating eye health into primary health care requires context-specific planning, community participation, adequate supplies, financing, leadership, governance, and partnerships.

Nevertheless, many community-based health programs struggle to move beyond short-term service activities. Sustainability is a managerial issue as much as a health service issue. Public health program sustainability depends on organizational capacity, strategic planning, partnerships, communication, adaptation, evaluation, and funding stability (Stoll et al., 2015). This is directly relevant to community-based eye health programs because activities such as screening, refraction, optical correction, and health education require continuous coordination of human resources, equipment, logistics, financing, and stakeholder commitment. Without adequate management, community eye health initiatives risk becoming episodic outreach activities rather than sustainable service models.

In this context, optical businesses should not be viewed only as commercial providers of eyewear or refraction services. They can also function as strategic actors within a mixed health system, particularly when their resources, service capabilities, and community relationships are aligned with public health objectives. WHO (2023) notes that effective engagement of private and civic health entities can help countries improve access to quality essential health services and support universal health coverage. For optical businesses, this implies the need to integrate business planning, operational efficiency, stakeholder collaboration, and social value orientation into community-based service delivery. However, the literature on community eye health has more often emphasized clinical, epidemiological, primary care, and policy dimensions than the managerial role of optical businesses in sustaining community-based eye health programs.

This study responds to that gap by examining the SESAMA II program as a qualitative case of community-based eye health service delivery in Indonesia. SESAMA II involves collaboration among optometry education institutions, optical business actors, and local communities. The program includes community-based visual acuity screening, refraction examinations using portable equipment, basic optical correction services, and eye health education. Rather than treating SESAMA II merely as a social service activity, this study analyzes it as a case through which optical business management strategies can be understood in relation to program implementation and sustainability.

Guided by this focus, the study addresses three research questions. First, what optical business management strategies support community-based eye health programs? Second, what managerial factors contribute to the implementation and sustainability of the SESAMA II program? Third, how can a case-based conceptual framework for socially oriented and sustainable optical business management be developed from the SESAMA II case? These questions are consistent with the qualitative case study orientation of the research because they emphasize process, context, managerial practice, and conceptual interpretation rather than causal testing. While previous studies have provided important insights into the burden of vision impairment, access inequality, refractive error service delivery, and primary eye care integration, fewer studies have explicitly examined how optical business management can support the continuity of community-based eye health programs. This study contributes by identifying management strategies used in the SESAMA II program, clarifying key managerial factors that support implementation and sustainability, and proposing a case-based conceptual framework for socially oriented optical business management. In practical terms, the study also offers insight for optometry institutions, optical businesses, and community health stakeholders seeking to design eye health initiatives that are not only socially beneficial but also operationally sustainable.

LITERATURE REVIEW

Community-Based Eye Health and Optical Service Delivery

Community-based eye health refers to the organization and delivery of eye care services in ways that are responsive to the needs, characteristics, and con-

straints of local communities. Rather than positioning communities merely as passive recipients of services, this approach emphasizes community participation in identifying needs, improving service uptake, supporting health education, and strengthening referral pathways. Murthy and Shamanna (2022) argue that eye care services are more likely to be successful when they meet community needs, are easy to access, and involve communities in planning and delivery. This principle is particularly relevant in underserved settings, where barriers to eye care are often shaped not only by clinical conditions but also by distance, affordability, awareness, trust, and local service availability.

The community-based approach is consistent with the broader agenda of integrated people-centred eye care. The World Health Organization (WHO, 2019) emphasizes that eye care should be embedded within health systems and organized around people's needs across the life course. In practice, this means that eye health programs should not be limited to episodic clinical activities, but should also include promotive, preventive, curative, and rehabilitative components that are connected to primary health care and referral systems. (Du Toit et al., 2013) similarly show that integrating eye health into primary health care requires a health systems strengthening perspective, including attention to service delivery, human resources, equipment and supplies, financing, leadership, governance, partnerships, and community participation.

Optical service delivery is a critical component of community-based eye health because refractive error can often be corrected through timely refraction services and appropriate spectacles. Keel and Mueller (2024) note that uncorrected refractive error remains the leading cause of near and distance vision impairment worldwide, while access to appropriate spectacles remains limited for many people who need them. The WHO SPECS 2030 initiative therefore calls for coordinated action to improve refractive services, build personnel capacity, improve public education, reduce costs, and strengthen surveillance and research. This agenda places optical services within a public health framework rather than treating them solely as commercial transactions.

The delivery of refractive and optical care in community and primary care settings can take various forms. Umaefulam et al. (2024) identify several approaches to refractive and optical care delivery, including community outreach, school-based screening, mobile services, tele-refraction, vision-centre models, public–private partnerships, and social enterprise models. These approaches show that optical care requires more than clinical competence. It also requires service design, workflow coordination, equipment availability, personnel allocation, affordability mechanisms, and follow-up systems. Therefore, community-based optical service delivery should be understood as both a health service activity and a managerial process.

Optical Business Management in Community-Based Service Programs

Optical businesses have traditionally been viewed as providers of commercial optical products and refraction-related services. However, in community-based eye health programs, optical businesses may also function as service delivery partners that contribute equipment, personnel, operational expertise, logistical support, and community-facing service capacity. This role becomes increasingly important when public health systems face limitations in reaching underserved populations. WHO (2023) notes that effective engagement of private health entities can support universal health coverage by improving access to essential services, provided that such engagement is properly governed and aligned with public health objectives.

From a management perspective, optical service delivery requires the coordination of several operational components. These include planning target services, organizing human resources, preparing equipment, managing service flow, controlling costs, coordinating stakeholders, and ensuring that services remain accessible to the intended community. Bhattacharyya et al. (2010) show that private and social enterprise health organizations in low- and middle-income countries have used innovations in marketing, financing, and operations to improve service availability and affordability for underserved populations. Their findings are useful for understanding how business processes can be adapted to support social health objectives.

In optical business management, operational efficiency is especially important because community programs often operate under resource constraints. A program may need to serve many participants within a limited period while using portable equipment, temporary service stations, and mixed teams consisting of students, practitioners, institutional partners, and community representatives. In such conditions, managerial decisions about task division, equipment scheduling, participant flow, and service sequencing can directly affect service accessibility and program feasibility. This is why optical business management should not be reduced to commercial sales management; it includes the organization of service processes that allow optical care to reach communities in practical and sustainable ways.

Recent studies on refractive error service delivery further support the relevance of socially oriented business models in optical care. Muma et al. (2025) developed a framework for integrating refractive error services into the eye health ecosystem in Kenya through social enterprise. Their framework identifies components

such as vision centres, cross-subsidization, skills development, partnerships, technology, referral systems, and service delivery as important elements for scaling refractive error coverage. Although the context differs from Indonesia, the study is relevant because it shows that optical care can be organized through hybrid models that combine service accessibility, operational sustainability, and social mission.

Program Sustainability, Strategic Collaboration, and Social Value Orientation

The sustainability of community-based eye health programs depends on more than the initial success of service delivery activities. Programs that rely only on temporary outreach, voluntary enthusiasm, or one-time institutional support are vulnerable to discontinuity. Schell et al. (2013) conceptualize public health program sustainability as a capacity shaped by several domains, including strategic planning, funding stability, partnerships, organizational capacity, program evaluation, program adaptation, communication, political support, and public health impact. This framework is useful for analyzing community eye health programs because it shifts attention from short-term implementation to the organizational and managerial conditions that allow programs to continue over time.

Strategic collaboration is one of the central conditions for sustainability. Community eye health programs often require cooperation among educational institutions, health professionals, optical businesses, local leaders, community representatives, and sometimes government or non-profit actors. In the context of eye care, Murthy and Shamanna (2022) emphasize that community engagement supports service uptake and long-term relevance because communities help shape services according to local needs and constraints. Marmamula et al. (2022) provide a concrete example through the vision guardian model, where locally recruited community members support screening, referral, follow-up, awareness, and monitoring. This illustrates that sustainable eye health delivery requires a social infrastructure that connects formal service providers with the community.

Collaboration also matters because no single actor usually has all the resources required for sustainable community-based optical services. Educational institutions may provide knowledge, students, and professional supervision; optical businesses may contribute equipment, refraction services, and operational expertise; and communities may provide local legitimacy, participant mobilization, and contextual knowledge. WHO (2023) argues that public, private, and civic sectors need to be harnessed and steered effectively to support universal health coverage. Applied to optical services, this means that collaboration should not be treated as informal assistance, but as a strategic mechanism for aligning resources, responsibilities, and long-term commitments.

Social value orientation provides the normative foundation for this type of collaboration. In community-based optical programs, social value may be reflected in efforts to improve access, reduce service barriers, provide eye health education, support underserved groups, and build community trust. However, social value must be managed carefully so that programs do not become unsustainable philanthropic events. Bhattacharyya et al. (2010) show that social enterprises in health care can combine social objectives with business process innovations, including cross-subsidy, high-volume low-cost models, process reengineering, and outreach. Muma et al. (2025) similarly suggest that social enterprises can help scale refractive error services when supported by partnerships, cost-efficiency mechanisms, technology, and appropriate referral systems.

Taken together, these studies suggest that community-based eye health programs require an integrated managerial logic. Optical business management contributes to service planning, operational coordination, and resource utilization. Community-based eye health principles ensure that services are aligned with local needs and accessible to underserved populations. Program sustainability literature highlights the importance of strategic planning, partnerships, organizational capacity, evaluation, and adaptation. Therefore, the present study positions SESAMA II as a case for examining how optical business management strategies, managerial factors, and social value orientation can support the implementation and sustainability of community-based eye health programs.

METHODS

Research Design and Case Selection

This study employed a document-based qualitative case study design. A qualitative approach was considered appropriate because the study sought to understand managerial practices, implementation processes, and contextual factors within a real-world community-based eye health program. Rather than measuring program effectiveness statistically, this study aimed to interpret how optical business management strategies were organized and enacted in the SESAMA II program.

The case study design was used because SESAMA II represents a bounded case of community-based optical service delivery involving optometry education institutions, optical business actors, and local communities. Case study research is suitable for examining contemporary phenomena within their real-life contexts, particularly when the boundaries between the phenomenon and its context are closely connected (Yin, 2017). In this

study, SESAMA II was selected because it provided a relevant and documented case for examining optical business management strategies, managerial factors supporting implementation and sustainability, and the development of a case-based conceptual framework.

Research Context: The SESAMA II Program

The research was conducted in the context of the SESAMA II program, a community-based eye health initiative implemented in Indonesia in 2025. The program involved collaborative activities among optometry education institutions, optical business actors, and community representatives. Its main activities included community-based visual acuity screening, refraction examination using portable equipment, basic optical correction services, and eye health education.

SESAMA II was considered relevant to the research objectives because it illustrates how optical service delivery can be organized outside conventional optical business settings. The program required planning of service activities, allocation of optical resources, coordination among stakeholders, and integration of social value into service delivery. Therefore, the case provided an empirical basis for analyzing how optical business management practices may support the implementation and sustainability of community-based eye health programs.

Data Sources and Collection Procedures

The primary empirical materials consisted of SESAMA II activity reports and program documentation. These documents provided information on program objectives, service activities, implementation processes, stakeholder involvement, and managerial arrangements. Document analysis is appropriate in qualitative research because documents can provide contextual, historical, and organizational information relevant to the phenomenon under investigation (Bowen, 2009).

In addition to document analysis, this study used non-participant observation notes and internal reflective discussion notes as supporting materials. Non-participant observation was used to record visible aspects of program implementation, including service workflow, task distribution, coordination among team members, use of optical equipment, and interaction between service providers and community participants. The researcher did not intervene in program decision-making during the observation process.

Internal reflective discussions were also used to clarify implementation processes and managerial considerations related to the program. These discussions involved program implementers and optical business actors. However, they were not treated as formal interview data. Instead, the discussion notes served as supplementary materials to contextualize and cross-check interpretations derived from program documents and observation notes.

Thus, the data sources used in this study consisted of: (1) SESAMA II activity reports, (2) program archives and documentation, (3) non-participant observation notes, and (4) internal reflective discussion notes. The use of these materials enabled the study to examine managerial practices from several sources while remaining consistent with the descriptive and case-based nature of the research.

Data Analysis

Data were analyzed using thematic analysis. Thematic analysis is a flexible qualitative method for identifying, analyzing, and reporting patterns within qualitative data (Braun & Clarke, 2006). In this study, the analysis was conducted through several stages. First, the researcher read the activity reports, documentation, observation notes, and reflective discussion notes repeatedly to become familiar with the data. Second, relevant information was coded by identifying segments related to optical business management practices, service planning, resource management, stakeholder collaboration, social value orientation, and program sustainability. Third, similar codes were grouped into broader categories. Fourth, these categories were reviewed and developed into themes that corresponded to the research questions.

The analytical process was both data-driven and conceptually informed. It was data-driven because the themes were developed from the empirical materials related to SESAMA II. At the same time, the interpretation was informed by the literature on community-based eye health, optical service delivery, program sustainability, and health service management. This approach allowed the analysis to remain grounded in the case while still being connected to relevant conceptual discussions.

Following the logic of qualitative data analysis, the process involved data condensation, data display, and conclusion drawing (Miles et al., 2014). Data condensation was conducted by selecting and organizing relevant information from the available materials. Data display was used to arrange the codes and categories into thematic patterns. Conclusion drawing was conducted by interpreting how the identified themes explained optical business management strategies and managerial factors in the SESAMA II program.

Trustworthiness

Several procedures were applied to enhance the trustworthiness of the study. First, source triangulation was conducted by comparing information from activity reports, program documentation, observation notes, and reflective discussion notes. Second, method triangulation was applied by combining document analysis,

non-participant observation, and reflective discussion. These procedures helped reduce dependence on a single source of evidence. Third, an audit trail was maintained through coding notes and thematic summaries to document how the analysis moved from raw materials to categories and final themes. Fourth, reflective review was used to examine whether the emerging interpretation was consistent with the available data and the research objectives. These procedures are consistent with the effort to strengthen credibility and dependability in qualitative thematic analysis (Nowell et al., 2017).

Given the nature of the data, the findings of this study should be understood as case-based analytical insights rather than statistically generalizable evidence. The study does not claim to measure the causal effectiveness of SESAMA II. Instead, it provides a contextual interpretation of how optical business management strategies were organized within a community-based eye health program and how these strategies may support implementation and program sustainability.

RESULTS

The analysis of SESAMA II activity reports, program documentation, non-participant observation notes, and internal reflective discussion notes identified four main themes related to optical business management in a community-based eye health program (see Table 1). These themes were: (1) community-based service planning, (2) operational management of optical resources, (3) strategic collaboration among stakeholders, and (4) social value orientation in optical service delivery. Together, these themes describe how optical business management practices were organized to support the implementation of the SESAMA II program.

Table 1. Optical Business Management Strategies in the SESAMA II Program

No	Strategy	Managerial Focus	Empirical Indicators
1	Community-based service planning	Community-based service planning	Community-based service planning
2	Operational management of optical resources	Efficient use of equipment, personnel, and service flow	Task distribution, use of portable equipment, and sequencing of screening, refraction, and education
3	Strategic collaboration among stakeholders	Coordination among institutional, business, and community actors	Involvement of optometry education institutions, optical business actors, and local community representatives
4	Social value orientation in optical service delivery	Integration of social objectives into optical service practices	Eye health education, humanistic service approach, and concern for program continuity

Source. Author(s)' own work.

Community-Based Service Planning

The first theme, community-based service planning, underscores that SESAMA II was tailored to the specific visual health needs and socioeconomic constraints of the target population. Rather than deploying a generic outreach model, the program specifically analyzed underserved groups and their vision-related complaints to determine the appropriate type and scale of intervention.

Consequently, the program focused on targeted activities: visual acuity screening, refraction examinations, basic optical corrections, and eye health education. This emphasis on service relevance aligned optical capacity with local realities, establishing community-based planning as a key managerial mechanism for effectively connecting services with underserved communities.

Operational Management of Optical Resources

The second theme relates to the operational management of optical resources. The materials indicate that SESAMA II required the coordination of optical equipment, personnel, and service flow in order to implement services within a community setting (see Table 2). Because the program was conducted outside a conventional optical business setting, operational arrangements became important for organizing the delivery of services. Operational management was reflected in the use of available optometric equipment, the division of roles among personnel, and the sequencing of service activities. The service process was organized from initial screening to refraction examination and then to eye health education. This sequence helped provide a clearer workflow for both service providers and community participants.

The findings also indicate that task distribution was an important part of the operational arrangement. Different actors were assigned roles according to the needs of the service process, including screening, refraction support, participant coordination, and education activities. The use of portable equipment further enabled optical services to be delivered in a community-based context. Overall, this theme shows that the implementation of SESAMA II depended not only on clinical or technical capacity, but also on the ability to organize resources and service processes in a practical manner.

Table 2. Optical Operational Management Strategy in the SESAMA II Program

No	Operational Component	Managerial Arrangement	Observed/Documented Function
1	Optometric equipment	Scheduled or coordinated use of available equipment	Supported the organization of refraction-related services in the community setting
2	Optometric personnel	Role distribution among service team members	Helped structure the division of tasks during service delivery
3	Service flow	Screening → refraction → eye health education	Provided an orderly sequence for participant movement and service activities

Source. Author(s)' own work.

Strategic Collaboration Among Stakeholders

The third theme concerns strategic collaboration among stakeholders. The SESAMA II program involved several actors, including optometry education institutions, optical business actors, and local community representatives. Each stakeholder contributed to different aspects of program implementation. Optometry education institutions contributed academic and professional support, including the involvement of optometry students and related educational resources. Optical business actors contributed to the optical service dimension of the program, particularly through their practical knowledge of optical service delivery and resource use. Community representatives supported the connection between the program and the target population, including community access, participant engagement, and local acceptance. This collaboration was visible across the planning, implementation, and evaluation of the program. The case indicates that SESAMA II was not organized by a single actor working independently, but through coordination among institutional, business, and community stakeholders. This theme suggests that collaboration functioned as a managerial mechanism for pooling resources, distributing roles, and supporting the implementation of community-based optical services.

Social Value Orientation in Optical Service Delivery

The fourth theme concerns the integration of social value into optical service delivery. In the SESAMA II program, optical services were not presented only as commercial activities, but were connected to broader social objectives related to eye health access and community education. This social value orientation was reflected in several aspects of the program. First, the program included eye health education as part of the service process. This indicates that the program was not limited to screening and refraction, but also sought to improve community awareness of eye health. Second, the service approach emphasized direct engagement with the community, suggesting an effort to make optical services more responsive and approachable. Third, the program materials emphasized the importance of continuity and sustainability, showing that social value was linked to the longer-term relevance of the program.

The available data do not allow strong claims about long-term outcomes such as customer loyalty or measured improvements in community eye health. However, the case indicates that social value orientation was treated as an important part of the optical business management strategy. Rather than separating business considerations from social objectives, SESAMA II illustrates how optical service practices may be organized to support community-oriented health goals.

Summary of Results

Overall, the results show that optical business management in the SESAMA II program was reflected in four interrelated practices: planning services based on community needs, organizing optical resources and service workflows, coordinating multiple stakeholders, and integrating social value into service delivery. These findings provide the empirical basis for discussing how optical business management strategies may support the implementation and sustainability of community-based eye health programs.

DISCUSSION

The findings indicate that optical business management in the SESAMA II program operates as an organizing logic for community-based optical service delivery. The four themes identified in this study, namely community-based service planning, operational management of optical resources, strategic stakeholder collaboration, and social value orientation, suggest that the implementation of a community eye health program requires more than clinical competence or social intention. Osborne et al. (2015) argue that service management should be understood through value creation in service processes, interactions, and user contexts rather than only through internal organizational outputs. From this perspective, SESAMA II can be interpreted as a community-based service system in which resources, actors, workflows, and community needs are coordinated to make optical services more accessible and contextually relevant.

The first interpretation concerns community-based planning as a form of service design. In SESAMA

II, planning was oriented toward identifying visual health needs, target groups, and types of services considered relevant for the community. This finding suggests that optical business management in a community setting cannot rely solely on a standardized commercial service model. Osborne (2018) emphasizes that service value is shaped through interaction between service providers and users within specific service contexts. In line with this view, community-based planning in SESAMA II can be understood as an attempt to design optical services around accessibility, service relevance, and user context. The program therefore reflects a shift from product-oriented optical service logic toward a more service-system-oriented approach.

The second interpretation relates to operational management and resource coordination. The findings show that portable equipment, role distribution among service personnel, and the sequencing of screening, refraction, and education activities were central to the implementation of SESAMA II. In management terms, these practices can be interpreted through a resource orchestration lens. Sirmon et al. (2011) explain that value creation depends not merely on possessing resources, but on structuring, bundling, and leveraging them in ways that support organizational objectives. In the SESAMA II case, optical equipment, personnel, service flow, and role allocation were arranged to enable service delivery outside conventional optical business settings. Thus, operational management was not only a technical issue of efficiency, but a managerial process for mobilizing limited resources in a community-based service environment.

The third interpretation concerns collaboration as a managerial coordination mechanism. SESAMA II involved optometry education institutions, optical business actors, and local community representatives. Each actor contributed different but complementary resources: educational institutions provided academic and professional support, optical business actors contributed service-related resources and practical expertise, and community representatives supported local access and acceptance. Ansell and Gash (2008) show that cross-sector collaboration requires coordination among actors with different capacities, interests, and institutional positions. Although SESAMA II should not be overstated as a formal collaborative governance arrangement, this perspective helps explain why collaboration in the program functioned as more than informal cooperation. It operated as a mechanism for connecting resources, legitimacy, and operational capacity across institutional, business, and community actors.

This collaborative logic is also consistent with the service ecosystem perspective. Osborne et al. (2022) argue that value creation in public service ecosystems occurs through interactions among multiple actors across institutional, organizational, and user levels. In the SESAMA II case, optical service value did not emerge from the optical business actor alone. It was co-constructed through the interaction of educational institutions, optical service providers, and the local community. This interpretation strengthens the managerial reading of the findings: community-based eye health programs require not only service provision, but also interorganizational coordination and stakeholder alignment.

The fourth interpretation concerns the integration of social value into optical service delivery. SESAMA II indicates that optical business practices can be connected to social objectives, including improving service access, providing eye health education, and strengthening community engagement. Doherty et al. (2014) describe social enterprises as hybrid organizations that combine social mission with commercial or operational requirements. SESAMA II should not be classified as a social enterprise in a strict organizational sense, because the available data do not support that claim. However, the case reflects a hybrid managerial logic in which business-related resources and service capabilities are directed toward a social health purpose.

Park and Bae (2020) further argues that hybrid organizations often manage the tension between social legitimacy and operational sustainability. This idea is useful for interpreting SESAMA II because the program's social value orientation was not separate from its managerial arrangements. Eye health education, community-facing service, and concern for program continuity were linked to how resources were planned, coordinated, and delivered. Therefore, social value in this case should not be understood as a decorative philanthropic element. It was part of the managerial logic through which optical service practices were adapted to a community setting.

Taken together, the findings suggest that the sustainability potential of community-based optical programs depends on the configuration of several managerial elements. Community-based planning provides contextual alignment, operational management enables service execution, stakeholder collaboration supports resource mobilization, and social value orientation gives the program a broader purpose beyond routine optical service provision. Schell et al. (2013) identify strategic planning, partnerships, organizational capacity, adaptation, evaluation, funding stability, and communication as important domains of public health program sustainability. Based on this framework, SESAMA II is best interpreted as showing an early sustainability-oriented managerial logic, not as evidence that long-term sustainability has already been achieved.

Thus, the SESAMA II case offers a case-based conceptual interpretation of how optical business management may support community-based eye health pro-

grams. The findings do not establish a generalizable causal model of program effectiveness. Rather, they suggest that community-based optical service programs may become more feasible when business management capabilities are configured around service design, resource orchestration, stakeholder collaboration, hybrid social value orientation, and sustainability-oriented planning.

Theoretical Contributions

This study contributes to service management literature by extending its application to community-based optical service delivery. Optical businesses are often understood primarily as commercial providers of eyewear and refraction-related services. However, the SESAMA II case shows that optical services can also be interpreted as a community-based service system. Osborne et al. (2015) emphasize that service management should focus on value creation through service processes, user interaction, and the broader service context. In line with this view, the findings show that the value of optical services in SESAMA II was not limited to the provision of screening, refraction, or optical correction. It was also shaped by community-based planning, service workflow, stakeholder interaction, and the alignment between service activities and community needs. This extends the discussion of service management into a setting where optical business practices are adapted to support community health objectives.

The study also contributes by introducing resource orchestration and stakeholder coordination perspectives into the discussion of community-based eye health programs. Much of the literature on community eye health emphasizes access, screening, service integration, and public health outcomes. This study adds a managerial perspective by showing that the implementation of such programs also depends on how resources and actors are organized. Sirmon et al. (2011) argue that value creation depends not merely on resource ownership, but on how resources are structured, bundled, and leveraged. In the SESAMA II case, optical equipment, service personnel, task distribution, and service flow were arranged to enable optical services to be delivered in a community setting. Similarly, Ansell and Gash (2008) highlight the importance of coordination among actors with different resources and institutional positions. This perspective helps explain how collaboration among optometry education institutions, optical business actors, and community representatives became a managerial condition for program implementation.

Another theoretical contribution lies in the study's interpretation of sustainability as a managerial capacity rather than as a simple outcome. Schell et al. (2013) conceptualize public health program sustainability through several domains, including strategic planning, partnerships, organizational capacity, adaptation, communication, evaluation, and funding stability. The SESAMA II case does not provide evidence of long-term sustainability in a causal or longitudinal sense. However, it shows how some sustainability-oriented capacities may begin to emerge through planning, operational coordination, stakeholder collaboration, and social value orientation. This contribution is important because it prevents sustainability from being treated as an abstract aspiration and instead frames it as a set of managerial conditions that need to be organized and maintained.

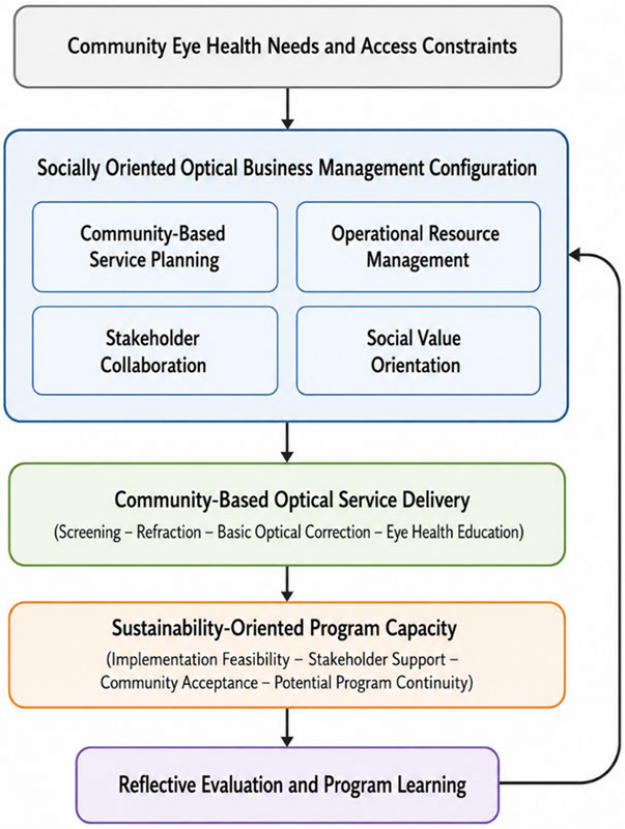

Figure 1. Case-Based Conceptual Framework of Socially Oriented Optical Business Management
Source. Author(s)' own work.

Finally, this study offers a case-based conceptual framework for socially oriented optical business management (see Figure 1). Doherty et al. (2014) describe social enterprises as hybrid organizations that combine social missions with commercial or operational requirements, while Park and Bae (2020) emphasize that hybrid organizations often need to manage legitimacy and sustainability tensions. The SESAMA II program should not be classified as a social enterprise in a strict organizational sense. However, the case provides a useful basis for understanding how optical business practices may adopt a hybrid managerial logic when business-related resources are directed toward community health purposes. Based on this interpretation, socially ori-

ented optical business management can be conceptualized as a configuration of community-based planning, operational resource management, stakeholder collaboration, and social value orientation. Because this study is based on a single qualitative case, this framework should be read as a context-specific conceptual contribution rather than as a validated or universally generalizable model.

Managerial Implications

The findings offer several managerial implications for optical businesses, optometry education institutions, and community eye health program managers. First, optical businesses should not treat community-based eye health activities merely as incidental corporate social responsibility or short-term outreach. The SESAMA II case suggests that such programs require deliberate service planning, resource allocation, stakeholder coordination, and continuity mechanisms. Therefore, optical businesses that intend to support community eye health programs should integrate these activities into their broader service strategy, rather than implementing them as isolated social events.

Second, community-based optical service programs require clear operational arrangements. Managers need to establish standard operating procedures for service flow, task distribution, equipment use, participant coordination, and documentation. In programs such as SESAMA II, the movement from screening to refraction, basic optical correction, and eye health education should be organized in a structured sequence. This is important because community-based service settings usually involve limited time, temporary service locations, and constrained resources. Without clear operational design, the program may depend too heavily on individual initiative and become difficult to replicate.

Third, stakeholder collaboration should be managed more formally. The SESAMA II case shows the importance of collaboration among optometry education institutions, optical business actors, and local communities. However, for such collaboration to support long-term program continuity, roles and responsibilities should be clearly defined. Educational institutions can contribute academic supervision and student involvement, optical businesses can provide practical service capacity and optical resources, while community representatives can support participant mobilization and local acceptance. Formalizing these roles through written agreements, coordination mechanisms, or recurring partnership plans would reduce ambiguity and strengthen program continuity.

Fourth, optical businesses and program managers should develop a basic evaluation system. The current case provides useful insight into managerial practices, but stronger documentation is needed if future programs want to claim improvements in access, service quality, participant satisfaction, operational efficiency, or sustainability. Managers should record indicators such as number of participants served, types of services delivered, referral needs, spectacle acceptance, participant feedback, service duration, resource use, and follow-up activities. These data would help transform community eye health programs from activity-based initiatives into evidence-informed service models.

Finally, social value orientation should be connected to managerial discipline. Providing eye health education and improving access for underserved communities are important, but they will not automatically make a program sustainable. Social value needs to be translated into concrete managerial practices, including planning cycles, budgeting, partnership development, service standards, documentation, and periodic review. In this sense, socially oriented optical business management requires both community commitment and operational capability. Without this combination, community-based eye health programs risk remaining symbolic or episodic rather than becoming sustainable service initiatives.

Limitations and Future Research Directions

This study has several limitations that should be considered when interpreting its findings. First, the study focuses on a single case, namely the SESAMA II program. As a result, the findings provide a context-specific understanding of optical business management in one community-based eye health program and should not be interpreted as statistically generalizable to all optical businesses or community eye health initiatives. The value of the study lies in its analytical interpretation of a documented case rather than in broad empirical generalization.

Second, the empirical materials were limited to program documents, program documentation, non-participant observation notes, and internal reflective discussion notes. Although these sources were useful for identifying managerial practices and implementation patterns, they did not provide the same depth of perspective that could have been obtained through formal interviews with program implementers, optical business actors, community representatives, or service participants. Therefore, the study is more capable of explaining how managerial practices were organized than capturing the subjective experiences, motivations, or evaluations of all actors involved.

Third, this study did not measure program outcomes quantitatively. It does not provide statistical evidence regarding improvements in access, service quality, participant satisfaction, cost efficiency, visual outcomes, or long-term program continuity. Therefore, the findings should not be read as evidence of causal effec-

tiveness. Instead, they should be understood as case-based insights into how optical business management strategies may support the implementation and sustainability orientation of community-based eye health programs.

Future research should address these limitations in several ways. Multi-case studies could compare different community-based optical service programs across various institutional, geographic, or socioeconomic contexts. Such studies would help determine whether the managerial patterns identified in SESAMA II are unique to this case or also appear in other community eye health initiatives. Future studies should also include formal interviews with optical business actors, educators, program managers, community leaders, and service participants to obtain a deeper understanding of stakeholder perspectives and program experiences.

In addition, future research may adopt mixed-method designs to combine qualitative insight with quantitative assessment. Quantitative indicators could include service reach, participant satisfaction, cost structure, service uptake, referral completion, spectacle acceptance, follow-up continuity, and perceived improvement in access to eye care. Longitudinal research is also needed to examine whether the sustainability-oriented managerial logic identified in this study actually leads to sustained program implementation over time. Such research would provide stronger evidence on the conditions under which socially oriented optical business management can contribute to inclusive and sustainable community-based eye health services.

CONCLUSION

This study examined optical business management strategies in the SESAMA II program, a community-based eye health initiative involving optometry education institutions, optical business actors, and local communities. The findings indicate that optical business management in this case was reflected in four main practices: community-based service planning, operational resource management, stakeholder collaboration, and social value orientation. These practices helped organize optical service delivery in a community setting by aligning service activities with community needs, structuring the use of equipment and personnel, coordinating multiple stakeholders, and connecting optical services with broader social health objectives.

Conceptually, the study shows that community-based optical service programs require more than clinical competence or one-time social engagement. They require a managerial configuration that links service design, resource coordination, stakeholder involvement, and social value creation. In this sense, optical businesses can be understood not only as commercial service providers but also as potential actors in community-oriented health service systems. The SESAMA II case illustrates how business-related capabilities may be adapted to support community-based eye health programs, particularly when these capabilities are organized around access, operational feasibility, collaboration, and program continuity.

AUTHOR DECLARATIONS

Ethical Approval or Exemption/Waiver: Formal ethics committee approval was not obtained for this study. The study was conducted as a document-based qualitative case analysis of the SESAMA II program, supported by non-participant observation and internal reflective discussions. It did not involve biomedical intervention, experimental treatment, or the collection of identifiable individual-level clinical data from service recipients. Permission to use SESAMA II program materials for academic analysis and publication was obtained verbally from the relevant program authority. The authors took full responsibility for maintaining confidentiality, anonymity, and ethical appropriateness throughout the research and reporting process, in accordance with generally accepted research ethics principles and applicable norms in Indonesia.

Informed Consent: This study did not involve formal interviews or the direct collection of identifiable personal data from service recipients. Permission to conduct the study and to publish the findings in a scientific journal was obtained verbally from the relevant SESAMA II program authority before the research was conducted. Internal reflective discussions were carried out with program-related actors for evaluative and analytical purposes. The individuals involved in these discussions were informed that the discussion notes could be used to support academic analysis and publication, and verbal consent was obtained for this purpose. No names, personal identifiers, or identifiable information of discussion participants, community members, or service recipients are disclosed in this manuscript.

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