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Abstract

In Kenya's dynamic agricultural sector, the strategic decisions of cooperatives are pivotal in shaping their performance and long-term sustainability. With a growing emphasis on evidence-based decision-making, there is heightened interest in agricultural cooperatives across the country. The Cooperative Alliance of Kenya (CAK) highlights the importance of data-driven approaches over intuition, as these provide a significant competitive advantage. However, despite many organizations collecting cooperative-related data, they often lack the expertise to analyze it effectively and extract actionable insights. This study explored the effect of business processes strategy on the performance of agri-based cooperatives in Kenya. The study was anchored on strategic choice theory which provides the foundation for understanding how business processes strategy influences organizational performance. Data was collected from 144 respondents in management roles across agricultural cooperatives. Primary data were gathered through questionnaires, and secondary data were derived from financial reports of the cooperatives covering 2020 to 2025. A pilot study was conducted to validate the data collection tools, employing Cronbach's alpha for reliability and the Kaiser-Meyer-Olkin test to confirm sampling adequacy. Data analysis was performed using SPSS version 26, involving data coding and analysis to produce descriptive and inferential insights. Descriptive statistics, including means and standard deviations, were used to summarize the data. Inferential statistics, including correlation and regression analyses, were employed to identify relationships. The study found a strong positive correlation between business processes strategy and cooperative performance ($r = 0.640$, $p = 0.000$), with business processes strategy explaining 46.2% of the variance in performance outcomes ($R^2 = 0.462$, $\beta = 0.592$, $p = 0.000$). The study concludes that systematic process optimization, customer relationship management, and operational enhancement significantly improve cooperative performance across multiple dimensions. Managers should prioritize internal process optimization, invest in automation technologies, establish KPIs for continuous improvement, and foster cross-functional collaboration through member engagement and innovation initiatives. Policymakers should develop infrastructure, establish cooperative support hubs offering technical assistance and digital tools, provide incentives for process innovation, and create regulatory frameworks supporting modernization, aligning with Kenya's Vision 2030 and Sustainable Development Goals to promote agri-based cooperative development and sustainability.

Keywords: *Business processes strategy, performance, agri-based cooperatives in Kenya*

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1.0 Background of the Study

Performance is critical in intensifying sustainability of institutions. Performance is defined as the implementation of strategies that give a competitive advantage over other firms (Ahmad & Avianto, 2021; Kang & Jeong, 2019). The performance of firms is measured through financial and non-financial performance indicators in which the financial factors include the profits level, return on assets, return in equity, sales revenue and non-financial indicators comprise of the market share, customer retention and company reputation (Magutu & Onger, 2020; Kang & Jeong, 2019; Ocasio & Radoynovska, 2019; Echaaobari, Adim & Ihunda, 2018; Kavulya, Muturi, Rotich & Ogollah, 2018; Masika & Simiyu, 2019). Cooperatives that do not actively engage in process improvement may find it challenging to keep pace with industry advancements. Performance can be determined by business processes strategy (Gu, Qi & Wang, 2018; Laite, 2018; Guandaru, 2019; Echaaobari, Adim & Ihunda, 2018; Glover & Levačić, 2020; Muksin & Avianto, 2021; Zandee, Deen, Kruijver & Stoetman, 2020; Kavulya, Muturi, Rotich & Ogollah, 2018).

Business process strategy is essential in determining the general plan of the business, informing the management with procedures to be adopted and enabling other departments to understand the goals of the company that needs to be achieved (Gu, Qi & Wang, 2018). The core business process strategies directly driving the performance are customer relationship management, product development management and supply chain management practices within departments (Laite, 2018; Cram, Fosso Wamba & Bourke, 2019). These processes form the operational backbone that enables organizations to deliver value to their stakeholders while maintaining competitive advantage in dynamic market environments. Organizations that have not embraced information technology as a means of emphasizing business process improvement practices, to a very great extent, have not developed performance (Guandaru, 2019).

Business process improvement practices have become increasingly important as organizations seek to enhance their operational capabilities and competitive positioning. Business process strategies involve the systematic redesign and optimization of organizational workflows to enhance efficiency and effectiveness through streamlined operations and improved service delivery mechanisms. Business processes encompass the systematic activities that transform inputs into outputs while creating value for customers and stakeholders. These processes require careful design, implementation, and continuous monitoring to ensure they align with organizational objectives and contribute to performance enhancement. The effectiveness of business processes directly impacts an organization's ability to compete in the marketplace and serve its constituents effectively. Process reengineering, customer relationship management, and business process monitoring represent key dimensions of comprehensive business process strategy that collectively drive organizational performance improvements.

Cooperatives are very critical in poverty eradication in many states of the World. SACCOs (Savings and Credit Cooperative Societies) are the financial arm of cooperatives that provide credit at fair and reasonable rates of interest to the members (Kinyuira, 2018). The number of agri-based Cooperatives in Kenya is 144 out of 7,726 registered Cooperatives (SASRA, 2021). However, these cooperatives face significant operational challenges that directly relate to their business process capabilities and effectiveness in service delivery to members. Nonetheless, the cooperatives in Kenya are confronted by challenges such as high illiteracy levels among the

members, audit arrears, shoddy bookkeeping, loan backlogs, managerial deficiency, inadequate capital, and heavy taxation (Okoyo, 2019).

The problems of determining, measuring and evaluating process effectiveness arise when different stakeholders have differing perspectives on operational outcomes (Glover & Levačić, 2020). These Cooperatives neglect to consolidate effective business processes, thus experience serious cash-flow difficulties and are unable to meet their financial obligations particularly to the farmers (Mutea, Rist & Jacobi, 2020). According to Masika and Simiyu (2019), cooperatives fail to implement effective business processes that would provide operational efficiency, such as lack of training and capacity building, slow decision-making processes and inadequate process management systems. In Kenya, Cooperatives have faced several operational challenges that need to be addressed through improved business processes (Kavulya, Muturi, Rotich & Ogollah, 2018). The poor performance of the cooperatives in Kenya formed the basis for conducting the current study that examined the effect of business processes strategy on performance in agri-based cooperatives in Kenya.

1.1 Statement of the Problem

In optimal circumstances, agri-based cooperatives should strategically leverage business processes optimization to enhance their operational effectiveness and performance outcomes. These business processes should encompass systematic workflow management, customer relationship optimization, and continuous process monitoring to create sustainable competitive advantages and superior service delivery to members. Effective business process strategy should enable cooperatives to streamline operations, reduce costs, improve service quality, and enhance member satisfaction while maintaining financial sustainability and competitive positioning in dynamic agricultural markets. However, business processes strategy in agri-based cooperatives in Kenya remains significantly underutilized, resulting in declining performance indicators that threaten organizational sustainability and member welfare. This underutilization is evidenced by operational trends where agri-based cooperatives experienced profit decline from Kshs14.08 billion in 2019 to Kshs13.91 billion in 2020 (Magutu & Ongeru, 2020). Additionally, the Kenya National Chamber of Commerce and Industry reported a substantial 31.6% decrease in sales in 2022, highlighting systemic operational challenges across the cooperative sector that directly relate to ineffective business process management.

Studies by Masika and Simiyu (2019) reveal widespread process-related issues including inadequate process management systems, slow decision-making processes, and lack of training in process optimization within cooperatives. Many cooperatives continue to rely on manual, outdated processes that limit operational efficiency and service delivery capabilities (Magutu & Ongeru, 2020). These findings suggest fundamental failures in implementing effective business process strategies that could drive cooperative operational excellence and performance enhancement. Contemporary business process management theory, as emphasized by Gu, Qi and Wang (2018), positions process optimization as the primary driver for organizational effectiveness and competitive advantage. The theory provides framework for organizations to achieve excellence through systematic process design, implementation, and continuous improvement initiatives.

Empirical studies consistently demonstrate that business process strategies including process reengineering, customer relationship management, and business process monitoring significantly and positively influence organizational performance (Glover & Levačić, 2020; Guandaru, 2019;

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Echaaobari, Adim & Ihunda, 2018; Laite, 2018). Despite this theoretical foundation and empirical evidence supporting business process strategy effectiveness, the relationship between business processes strategy and performance in Kenya's agri-based cooperatives remains insufficiently understood and inadequately implemented. Limited research has examined how specific business process dimensions influence cooperative performance within the unique context of agricultural cooperatives operating in developing economies. This knowledge gap prevents cooperative managers from making informed decisions about process optimization investments and implementation strategies.

The failure to implement effective business process strategies has created a cycle of operational inefficiency that undermines cooperative competitiveness and member satisfaction. Cooperatives that do not actively engage in process improvement may find it challenging to keep pace with industry advancements and compete effectively with private agricultural businesses and financial institutions. Organizations that have not embraced information technology as a means of emphasizing business process improvement practices have not developed performance to expected levels (Guandaru, 2019). This gap necessitates comprehensive investigation to understand how business processes strategy influences cooperative performance and to identify specific process dimensions that drive superior outcomes in the Kenyan agricultural cooperative context. The study aims to provide empirical evidence on the relationship between business processes strategy and performance, offering practical guidance for cooperative managers seeking to enhance operational effectiveness through systematic process optimization and strategic process management initiatives.

1.2 Research Objective

To analyze the effect of business processes strategy on performance of agri-based cooperatives in Kenya

1.3 Research Hypothesis

H₀: Business processes strategy does not have a significant effect on performance of Agri based cooperatives in Kenya

2.0 Literature Review

The literature review is discussed in sections.

2.1 Theoretical Framework

A theoretical framework is an examination of the existing or self-formulated theories concerning the research objectives. This study was anchored on strategic choice theory which provides the foundation for understanding how business processes strategy influences organizational performance. The theory was developed by Wisner (2003) as a perspective concerned with adoption of strategies that can address the firm's performance. In order to execute strategic choices effectively and achieve performance, the firm requires strategic management practices to enact performance effectively (Wisner, 2003). This strategy requires an end-to-end focus on integration of business processes for the purpose of providing optimum value to the cooperative (Gu, Qi & Wang, 2018). Strategic choice theory supports business processes strategy as the main performance driver that cooperatives strive to achieve.

Akwalu, (2021) emphasizes that strategic choice theory fundamentally supports “organizational performance” as the primary objective for organizations. This theory outlines strategies firms can adopt to gain competitive advantages by addressing critical issues in strategy selection. Also, the classification of retailer strategic orientations into premium, hybrid, and emergent is introduced without sufficient detail about what differentiates these categories. For instance, what specific behaviors or characteristics define a retailer as premium, hybrid, or emergent? Providing more concrete examples or criteria would make the classification more insightful.

According to Wilson, Karon, & Alamuddin (2020), in order to meet the needs of users, there would be need to require extensive component customization, interactive process development, and repeated process testing. Such development processes would involve extensive cross-organizational collaboration from various members. The theory contends that competitive advantage comes from aligning skills, strategic deployment and capable workforce with organizational systems, structures and processes that achieve capabilities at the corporate level (Guandaru, 2019). This theoretical foundation supports the study's focus on business processes strategy as a critical strategic choice that directly influences cooperative performance outcomes through improved operational effectiveness and enhanced service delivery capabilities. The theory is relevant to the current study since it helps assess the extent to which business processes strategy influences performance among agri-based cooperatives in Kenya.

2.2 Conceptual Framework

Figure 1 depicts conceptual framework showing the directional relationship from the independent variable to the dependent variable.

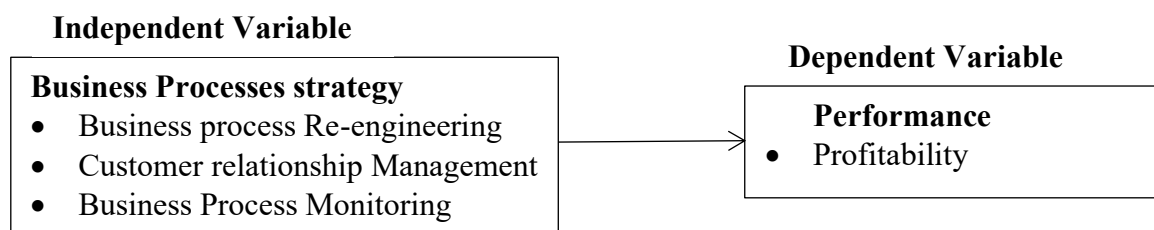


Figure 1: Conceptual Framework

2.3 Empirical Literature on Business Processes Strategy and Performance

World Health Organization (2021) employed a descriptive qualitative approach to define business processes in health facilities, identifying them as sets of related activities performed together to achieve health programme objectives such as registration, counselling, and referrals. The study found that workflows serve as visual representations enhancing communication and collaboration among users, stakeholders, and engineers. However, this research focused on healthcare delivery contexts, presenting a contextual gap as the operational requirements, stakeholder interactions, and process objectives in agricultural cooperatives differ substantially from medical programme areas, necessitating cooperative-specific process strategy research. Magutu and Ongeru (2020) used descriptive analysis to investigate process improvement in cooperatives, finding that cooperatives not actively engaging in process improvement struggle to maintain industry competitiveness, with key success factors including top management support, employee involvement, and IT infrastructure alignment.

Similarly, Leyh et al. (2020) employed survey methodology examining German SMEs and discovered that firms with higher digitalization levels achieved 28% greater revenue growth and 22% better cost efficiency, with organizational culture and employee digital skills moderating digitalization's performance impact. Both studies present methodological gaps—Magutu and Ongeru lacked quantitative measurement using standardized instruments, while Leyh et al. focused on developed European economies with advanced digital infrastructure, differing from Kenya's developing economy context. Sriram and Stump (2019) conducted empirical research on 412 North American manufacturing firms using survey methodology and found that organizations adopting holistic BPM approaches integrating both technological and human aspects achieved significantly better performance outcomes compared to those focusing solely on process automation. The study revealed 24% increased operational efficiency and 19% improved profitability for firms implementing comprehensive process management. However, this research presents a conceptual gap as it examined general BPM implementation without addressing specific business process dimensions relevant to agricultural cooperatives such as member service processes, agricultural value chain management, cooperative governance processes, and member relationship management systems.

Laite (2018) employed quantitative methodology investigating Finnish manufacturing firms and found that customer relationship management directly drives performance, while product development management and supply chain management prove critical for overall firm success, recommending cross-functional integration, customer-driven development, and demand-supply integration. Li and Hu (2021) used regression analysis examining Chinese manufacturing firms and discovered that business process strategies influence manufacturing, delivery, and logistics costs, subsequently affecting sales and organizational efficiency, with internal resources contributing significantly to firm performance due to asset specificity and time-compression diseconomies. Both studies present contextual gaps, focusing on manufacturing firms in developed or rapidly industrializing economies rather than agricultural cooperatives in developing contexts.

Rahimi et al. (2022) surveyed 389 large European enterprises using convenience sampling and found that organizations capable of simultaneously exploiting existing processes while exploring new process innovations achieved 31% higher return on assets and 26% better market share growth compared to firms focusing on single approaches, with process ambidexterity proving particularly effective in technologically turbulent industries. vom Brocke et al. (2021) conducted comprehensive meta-analysis synthesizing 103 empirical studies encompassing over 30,000 organizations across various industries, finding significant positive correlation between BPM maturity and multiple performance metrics ($r = 0.41$, $p < 0.001$). Both studies present methodological gaps—Rahimi et al. used convenience sampling without targeting cooperatives or examining structural moderation, while vom Brocke et al.'s meta-analytical approach lacks the consistency of primary research with standardized instruments in single-country cooperative contexts.

Pollard and Wilson (2019) employed qualitative pedagogical analysis examining entrepreneurship training programs and found that non-arts entrepreneurship training helps participants transform business ideas into actionable ventures, while arts entrepreneurship pedagogically focuses on generating projects sustaining artists' practice and creativity. The study revealed that pedagogy commonly accommodates what arts professionals consider the primary driver of arts entrepreneurship. However, this research presents a methodological gap by adopting qualitative

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analysis focusing on training and educational approaches without quantitative measurement of business processes strategy effects on organizational performance, lacking the structured questionnaires and inferential statistical analysis necessary to establish generalizable relationships between business processes strategy and cooperative performance in agricultural contexts.

3.0 Research Methodology

The study adopted a descriptive research design grounded in positivistic philosophy to systematically examine relationships between business processes strategy and performance in real-world cooperative settings without variable manipulation (Kothari, 2013). The target population comprised 24 agri-based cooperatives in Kenya (SASRA, 2022), with stratified sampling employed across three management levels (top, middle, and supervisory) yielding 144 respondents through proportional allocation of six respondents per cooperative (two per management level) systematically selected using employee registers. Data collection utilized both primary instruments (structured questionnaires with five-point Likert scales administered via four-week drop-and-pick methodology) and secondary sources (audited financial statements and cooperative records spanning 2018-2023 covering profitability, market share, and member satisfaction), with non-response bias mitigated through follow-up visits and telephone reminders. Data analysis employed SPSS version 26 for descriptive statistics (mean, standard deviation, frequencies) and inferential analysis (correlation and simple linear regression), with comprehensive diagnostic tests confirming all classical linear regression assumptions including linearity (scatter plot analysis), normality (Kolmogorov-Smirnov and Shapiro-Wilk tests, $p>0.05$), absence of multicollinearity ($VIF<10$), and homoscedasticity (Breusch-Pagan test $p=0.2384$), ensuring statistical validity and reliability.

4.0 Research Findings and Discussions

This chapter presents the data analysis, research findings and interpretation.

4.1 Response Rate

The study adopted a descriptive research design where all possible study subjects were enumerated. Therefore, the number of questionnaires distributed to respondents was 144 in tandem with sample frame. Out of the 144 questionnaires, 129 were correctly, fully filled and returned. This presented a response rate of 89.58% which according to Kothari (2011) is appropriate for analysis; while 15 questionnaires were either never filled at all by respondents or not returned and could not be reached representing 10.42% of the questionnaires.

4.2 Descriptive Statistics

The descriptive statistics of the study variables included business processes strategy and performance of agri- based cooperatives in Kenya.

4.2.1 Business Processes Strategy

The descriptive statistics on business processes strategy and performance is in Table 1

Table 1: Descriptive Statistics on Business Processes Strategy

Business Processes	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Standard deviation
The organization has recognized business process strategies to understand the goals of the company that needs to be achieved to increase performance	13.90%	51.10%	8.20%	19.00%	7.80%	2.56	1.17
The organization has developed a friendly customer relationship to enhance the performance	29.90%	45.00%	7.80%	9.10%	8.20%	2.21	1.2
There is the training of the workforce to improve their skills to cope with changing working trends and to more competitiveness.	30.70%	47.60%	6.50%	12.10%	3.00%	2.09	1.06
There is high re-engineering of the business process to increase the performance.	23.40%	50.60%	5.60%	15.60%	4.80%	2.28	1.13
The business process strategy has helped the management with procedures to be adopted to develop the performance	33.30%	46.30%	3.00%	14.30%	3.00%	2.07	1.00
The organization has embraced the information technology to improve the performance	19.90%	53.20%	6.10%	17.30%	3.50%	2.31	1.08
The organization has recognized business process strategies to understand the goals of the company that needs to be achieved to increase the performance	14.70%	44.20%	6.90%	20.30%	13.90%	2.04	1.32
Average						2.28	1.13

The study examined respondents' perceptions of business processes strategy implementation within their cooperatives. Regarding whether business process strategies enable other departments to understand company goals that need to be achieved to increase performance, 65% of respondents disagree, 8.20% are neutral, and only 26.80% agree. A mean score of 2.56 with a standard deviation of 1.17 suggests substantial variance in respondents' opinions. These findings indicate a need for better strategic alignment within the cooperative to enhance overall performance. Lund and Pollman (2021) noted that corporate governance involves neutral processes and practices governing company management. Nduati (2023) observed that internet growth, business globalization, and information economy evolution have created novel digital innovations, business processes, and knowledge-sharing methods.

Regarding organizational development of friendly customer relationships to enhance performance, 74.90% of respondents disagree, 7.80% are neutral, and only 17.30% agree. The mean score of 2.21 with a standard deviation of 1.20 indicates notable disagreement among respondents. This suggests that respondents do not believe the cooperative has effectively developed friendly customer relationships to boost performance. Laite (2018) identified core business processes as product development management, supply chain management, and customer relationship

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management for enhancing performance. Regarding workforce training to improve customer relationship skills to cope with competitiveness, 78.30% disagree, 6.50% are neutral, and only 15.10% agree. A mean score of 2.09 and standard deviation of 1.06 indicate consistent disagreement among respondents. This finding highlights the need for increased investment in workforce training and development to remain competitive. Mendling et al. (2024) analyzed 287 firms implementing blockchain-based process solutions. These organizations achieved 41% improvement in process transparency, 33% reduction in transaction costs, and 27% increase in operational efficiency.

Concerning high re-engineering of business processes to increase performance of agri-based cooperatives in Kenya, 74% of respondents disagree, 5.60% are neutral, while 20.40% agree. The mean score of 2.28 suggests moderate disagreement. Respondents do not perceive significant efforts in process re-engineering to enhance performance. This highlights potential for the cooperative to optimize business processes for improved performance. Gu, Qi & Wang (2018) noted that business process strategy is essential for determining general business plans and informing management about strategy adoption. Regarding how business process re-engineering has helped management with procedures to be adopted for performance of agri-based cooperatives in Kenya, 79.60% of respondents disagree, 3.00% are neutral, while 17.30% agree. The mean score of 2.07 with a standard deviation of 1.00 suggests consistent disagreement. Respondents do not believe business process strategy effectively assists management in defining performance-enhancing procedures. Rahimi *et al.* (2022) studied 389 enterprises across Europe. Organizations balancing existing process exploitation with new process innovation achieved 31% higher return on assets and 26% better market share growth compared to firms focusing on single approaches.

Concerning organizational embrace of business process re-engineering to improve performance of agri-based cooperatives in Kenya, 19.90% strongly disagree, 53.20% disagree, 6.10% are neutral, 17.30% agree, and 3.50% strongly agree. The mean score of 2.31 and standard deviation of 1.08 indicate notable disagreement. While respondents recognize information technology's importance, significant room exists for further technology adoption and optimization. Leyh et al. (2020) found that companies with high process digitalization levels achieved 28% higher revenue growth and 22% better cost efficiency compared to low digitalization companies. Regarding how business process monitoring helps in determining the general plan of agri-based cooperatives in Kenya, 17.70% strongly disagree, 39.40% disagree, 9.50% are neutral, 24.70% agree, and 8.70% strongly agree. The mean score of 2.67 with a standard deviation of 1.06 indicates moderate disagreement. Respondents do not believe business process strategy substantially contributes to defining general business plans. Sriram and Stump (2019) surveyed 412 North American manufacturing firms. Companies implementing comprehensive business process management strategies experienced 24% increased operational efficiency and 19% improved profitability. Firms adopting holistic approaches integrating technological and human aspects achieved superior performance compared to those focusing solely on process automation.

The cooperative can better integrate business processes into strategic planning efforts. These findings highlight improvement areas including strategic alignment of business processes, customer relationship management, workforce training, process re-engineering, and information technology adoption. Addressing these aspects can enhance performance and competitiveness in the agricultural sector. Open-ended responses revealed that business process strategy significantly influences agricultural cooperative performance in Kenya. This strategy encompasses activities

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for streamlining and optimizing cooperative operations. When business processes lack alignment with performance goals, inefficiencies, missed opportunities, and suboptimal outcomes result. The cooperative faces considerable challenges in developing friendly customer relationships, as disagreement percentages indicate. Effective customer relationship management builds trust, retains customers, and expands market share. Failure negatively impacts performance through customer churn and reduced revenues.

Workforce training for changing working trends and competitiveness represents a crucial business process strategy aspect. Data suggests substantial disagreement in this area. In rapidly evolving business environments, skilled and adaptable workforces are vital for competitiveness. When employees lack necessary skills and training for navigating changing trends, cooperative adaptation and innovation abilities suffer, potentially impacting performance. Business process re-engineering involves redesigning and improving processes for increased performance. Many respondents express dissatisfaction in this area. Limited focus on process re-engineering creates inefficiencies, increased costs, and reduced competitiveness, as Kiloh, Magutu, & Onger (2020) confirmed. Cooperatives avoiding active process improvement struggle to maintain pace with industry advancements.

Business process strategy alignment with general business plans represents essential strategic management. Data indicates notable disagreement in this area. When business processes lack connection to cooperative strategic goals, direction and coordination suffer, potentially hampering performance. Business process strategy significantly influences agri-based cooperative performance in Kenya. Data highlights improvement needs including strategic alignment, customer relationship management, workforce training, process re-engineering, information technology adoption, and business process integration with overall strategic plans. Addressing these areas can enhance performance, increase competitiveness, and promote sustainable growth for agricultural cooperatives in Kenya.

4.2.2 Performance

The study collected both primary and secondary data to analyze the performance of the firms, focusing on variables such as profitability, market share, and growth. Secondary data was specifically utilized to ascertain the firms' profitability, measured in terms of net profits and their growth, evaluated through the expansion metric of the number of branches opened. The questionnaires were used to collect data on market share. The gathered data, both primary and secondary, provided a holistic view of the firms' performance, which is meticulously summarized in Table 2 and Figure 2.

Table 2: Descriptive Statistics on Performance

Performance	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Standard deviation
The profitability of the agri-based cooperative has been increasing over the years.	20.30%	52.40%	4.30%	16.00%	6.90%	2.37	1.175
The market share of the agri-based cooperative has been increasing over the years.	5.20%	58.90%	12.10%	14.70%	9.10%	2.64	1.09
The growth of the agri-based cooperative has been increasing over the years.	28.10%	45.50%	9.10%	9.50%	7.80%	2.23	1.19
Operational efficiency in the agri-based cooperative has improved over the years.	24.20%	49.40%	8.20%	12.10%	6.10%	2.26	1.14
The customer base for the agri-based cooperative has expanded annually.	29.00%	52.80%	2.60%	10.00%	5.60%	2.10	1.1
Diversification of products and services has been promoted to contribute to the cooperative's growth over the years.	26.40%	41.10%	4.80%	25.10%	2.60%	2.04	1.19
Investment in technology has been introduced in the organization to boost the cooperative's profitability	19.90%	49.40%	7.40%	18.60%	4.80%	2.06	1.14
Average						2.24	1.15

Regarding whether the agri-based cooperative's profitability has increased over time, a significant 72.70% of respondents either disagree or strongly disagree that profitability has increased. Only 22.90% agreed or strongly agreed with this statement, while 4.30% remained neutral. The majority of respondents do not believe profitability has increased. The mean score of 2.37 and standard deviation of 1.175 indicate low agreement with some variation in opinions. Li & Hu (2021) stated that transformation and upgrading policies for processing trade reduce enterprise innovation and profitability levels, but enterprise innovation and profitability can increase enterprise productivity. Concerning whether the agri-based cooperative's market share has grown over time, a large majority of respondents (64.10%) disagreed or strongly disagreed that market share has been increasing. Furthermore, 12.10% were undecided, while 23.80% agreed or strongly agreed with the statement. This implies that most respondents do not see market share increases. The mean score of 2.64 and standard deviation of 1.09 indicate relatively high disagreement against market share increases. Grobman et al (2020) established that innovativeness comprises commitment and technological capacity to engage in risky behavior and rapidly incorporate change in business practices through creating and adopting new ideas that facilitate innovation and deliver superior competitive advantage and large market share.

Regarding cooperative growth increases over the years, a large proportion of respondents (73.60%) disagreed or strongly disagreed that cooperative growth has been increasing. Additionally, 9.10% were neutral, while 17.30% agreed or strongly agreed with the statement. This suggests that a sizable proportion of respondents do not expect cooperative growth to accelerate. The mean score

of 2.23 and standard deviation of 1.19 indicate some disagreement. Alabi, David & Aderinto (2019) agreed that bureaucracy, unstable policy climate, unfriendly customs and trade regulations, tight monetary and credit policies, corruption, and excessive tax regimes, workforce and labor regulations negatively affected business growth and competitive advantage in Ghana.

Concerning operational efficiency improvements in agri-based cooperatives over time, a significant 73.60% of respondents disagreed or strongly disagreed that operational efficiency had improved. Furthermore, 8.20% were undecided, while 18.20% agreed or strongly agreed with the statement. This implies that most respondents do not believe operational efficiency has improved. The mean score of 2.26 and standard deviation of 1.14 indicate low agreement with some variation in opinions. Mutea, Rist & Jacobi (2020) agreed with results showing that collaboration provides collective experience and expertise enabling organizations to navigate obstacles more adeptly, thereby enhancing performance metrics like problem-solving speed, operational efficiency, and member satisfaction.

Regarding annual customer base growth for agri-based cooperatives, a sizable majority of respondents (81.80%) disagreed or strongly disagreed that the customer base has grown annually. Furthermore, 2.60% were undecided, while 15.60% agreed or strongly agreed with the statement. This suggests that most respondents do not see annual customer base growth. A mean of 2.10 and standard deviation of 1.1 indicate moderate agreement levels. Sefeedpari *et al* (2020) showed that financial indicators include sales revenue and profits while non-financial performance indicators include market share, growth, production, number of branches, customer base and employee retention.

Concerning product and service diversification promotion to contribute to cooperative growth over the years, a sizable proportion of respondents (67.50%) disagreed or strongly disagreed that product and service diversification has contributed to cooperative growth. Additionally, 4.80% were neutral, while 27.70% agreed or strongly agreed with the statement. This indicates that while a sizable proportion supports diversification, significant disagreement exists. The mean score of 2.04 and standard deviation of 1.19 indicate some disagreement. Hawke (2021) stated that structure can negatively or complicatedly influence performance where organizational operations are not effectively aligned with performance goals.

Regarding technological investments made in organizations to increase cooperative profitability, a significant 69.30% of respondents disagreed or strongly disagreed that technological investment has increased profitability. Furthermore, 7.40% were undecided, while 23.40% agreed or strongly agreed with the statement. This suggests that most respondents do not see technology investment as a significant profitability driver. The mean score of 2.06 and standard deviation of 1.14 indicate low agreement with some variation in opinions. Study results concur with Yifu and Shen (2018) who emphasized China's growth through technological innovation.

The findings indicate that respondents perceive challenges in various aspects of agri-based cooperative performance. Notably, skepticism exists about rising profitability, market share, growth, and operational efficiency. However, some agreement exists on the importance of expanding customer base and promoting diversification as growth drivers. Technology investment is viewed skeptically as a profitability driver. Agreement levels among respondents vary across these performance aspects, with some areas showing more consensus than others. Furthermore, the study gathered secondary data to determine firms' profitability and growth, with results

demonstrating the complex relationship between strategic choices and measurable performance outcomes in Kenya's agricultural cooperative sector. Furthermore, the study gathered secondary data to determine the firms' profitability (Net profits) and growth (number of branches opened), and the results are shown in Figure 2.

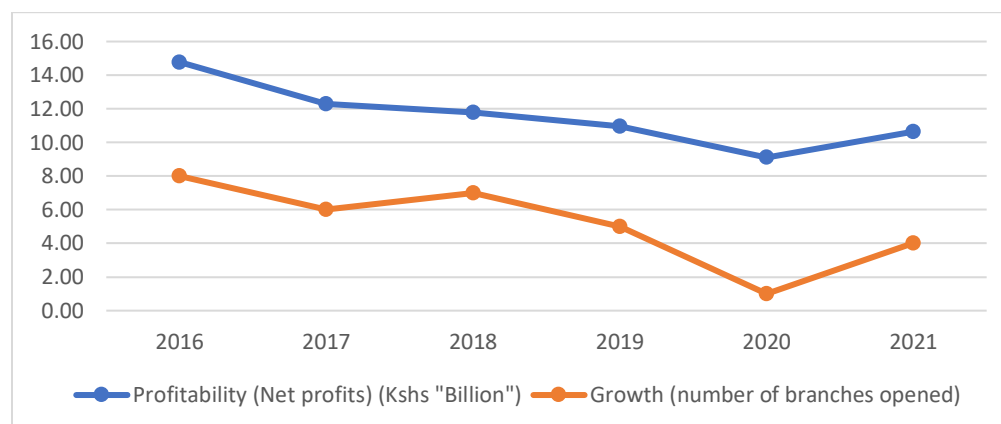


Figure 2: Firms' Net profits and growth

The data in Figure 2 provides valuable insights into the firms' financial performance and growth over a six-year period. Analyzing this data allows us to reach important conclusions and implications for agricultural cooperatives. For starters, the trend in net profits is an important indicator of these cooperatives' financial health. From 2016 to 2020, net profits fell from Kshs14.78 billion to Kshs9.10 billion according to the data. This decline could be attributed to a variety of factors, including changes in market conditions, increased competition, or internal cooperative challenges. The implications of this trend are significant because it suggests that cooperatives were experiencing financial difficulties during this time period, which may have hampered their ability to invest in growth initiatives or fund strategic projects. However, net profits rebound to Kshs10.65 billion in 2021, indicating a positive turnaround. This improvement suggests that the cooperatives may have put in place effective strategies to address the issues they were facing. It could also reflect a general economic recovery, resulting in increased consumer demand and profitability.

The implication is that because cooperatives were able to reverse the downward trend in profitability, they have the potential for resilience and adaptability. In terms of expansion, the number of cooperative branches opened has varied over time. They opened eight new branches in 2016, indicating an expansion strategy. However, this number fell to 6 in 2017, indicating a possible slowdown in growth initiatives. The number of new branches fluctuated in the following years, with only one branch opening in 2020. This decrease in branch openings could be attributed to the challenging financial environment that existed at the time. Overall, the data in Figure 2 highlight the dynamic nature of the performance and growth of agri-based cooperatives. It emphasizes the significance of sound strategic decision-making and adaptability in the face of changing market conditions. The positive trend in 2021 suggests that, with the right strategies, these cooperatives have the potential to thrive and continue their mission of assisting Kenyan agricultural communities.

4.3 Correlation Analysis

Correlation analysis examines the association between independent and dependent variables. The correlation results are summarized in Table 3.

Table 3: Pearson Correlation Matrix between Business Processes Strategy and Cooperative Performance

Variables	Performance	Business Processes Strategy
Performance		
Pearson Correlation (r)	1.000	
Significance (2-tailed)	0.000	
Business Processes Strategy		
Pearson Correlation (r)	.640**	1.000
Significance (2-tailed)	0.000	

Correlation is significant at the 0.05 level (2-tailed).

The study found that business processes strategy exhibits a strong positive correlation with performance ($r=0.640$, $p=0.000$), indicating that business processes strategy is a strong predictor of cooperative performance. This correlation demonstrates that cooperatives implementing effective process optimization, customer relationship management, and operational enhancement tend to achieve better performance outcomes across multiple dimensions including profitability, market share, and growth indicators. The significant correlation coefficient validates business processes strategy as an important factor associated with cooperative success in Kenya's agricultural sector.

4.4 Regression Analysis

Regression analysis is a statistical method used to understand the relationship between variables. The regression analysis included the simple regression analyses. The objective of the study was to analyze business processes strategy on performance of agri based cooperatives in Kenya. The simple regression analysis includes model fitness, analysis of variance (ANOVA), and regression coefficients. Table 4 presents the model fitness of Business Processes Strategy.

Table 4: Model Fitness of Business Processes Strategy

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.640a	0.462	0.458	0.247276

a Predictor: (Constant), Business Processes Strategy

Regarding model fitness, the results in Table 4 show that business processes strategy has substantial explanatory power for the performance of agri-based cooperatives. The R-square value of 0.462 indicates that 46.2% of the variation in cooperative performance can be explained by business processes strategy. The adjusted R-square value of 0.458 suggests that the model's

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explanatory power remains relatively stable even after accounting for the number of predictors. When cooperatives focus on operational optimization, customer relationship management, and service delivery enhancement, these process-related activities account for nearly half of the performance differences among cooperatives. This substantial R^2 value indicates that operational excellence and process optimization form foundational elements for cooperative success. Prior to conducting the regression analysis, comprehensive diagnostic tests confirmed that all classical linear regression assumptions were met, including linearity (verified through scatter plot analysis), normality of residuals (confirmed via Kolmogorov-Smirnov and Shapiro-Wilk tests with p-values >0.05), absence of multicollinearity (VIF values <10), and homoscedasticity (Breusch-Pagan test), ensuring the validity and reliability of the statistical results. The Analysis of Variance (ANOVA) results are presented in Table 5.

Table 5: Analysis of Variance (ANOVA) of Business Processes Strategy

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.674	1	6.674	109.149	.000b
	Residual	7.765	127	0.061		
	Total	14.439	128			

a Dependent Variable: Performance

b Predictors: (Constant), Business Processes Strategy

The ANOVA results in Table 5 confirm the statistical significance of the relationship between business processes strategy and cooperative performance. The ANOVA test assesses whether the regression model as a whole is statistically significant by comparing the explained variance to the unexplained variance. The F-value of 109.149 with 1 degree of freedom for regression and 127 degrees of freedom for residuals, along with the corresponding p-value of 0.000, indicate that the model is statistically significant at the 0.001 level. This suggests that business processes strategy has a significant impact on the performance of agri-based cooperatives in Kenya. The regression coefficient results are discussed in Table 6

Table 6: Regression Coefficients of Business Processes Strategy

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.792	0.147		5.407	0.000
	Business Processes Strategy	0.592	0.057	0.680	10.447	0.000

a Dependent Variable: Performance

The study results indicate that business processes strategy is positively and significantly related to the performance of agri-based cooperatives in Kenya ($\beta=0.592$, $p=0.000$). This implies that a one-unit increase in business processes strategy would lead to a 0.592-unit increase in cooperative performance, holding other factors constant. The study rejects the null hypothesis since the p-value is less than 0.05. Hence, business processes strategy has a significant effect on performance of agri-based cooperatives in Kenya. These findings highlight the importance of implementing effective business processes strategies to enhance the performance outcomes of agri-based

cooperatives. Cooperatives should focus on optimizing their internal processes, streamlining operations, and improving efficiency to drive better performance. This may involve adopting best practices, investing in process automation, and continuously monitoring and improving business processes. The results extend Laite's (2018) findings by demonstrating that business process optimization in agricultural cooperatives specifically yields measurable performance improvements, while supporting Nduati's (2023) emphasis on innovation by showing that systematic process improvements represent a form of operational innovation that directly enhances cooperative effectiveness in the agricultural sector.

5.0 Conclusion

The study concludes that business processes strategy significantly influences the performance of agri-based cooperatives in Kenya, with the rejection of the null hypothesis establishing a strong positive relationship between these variables. The research demonstrates that business process strategies, particularly process re-engineering and customer relationship management, have measurable impacts on cooperative performance, underscoring how optimization of internal processes contributes to better overall outcomes. The findings indicate that cooperatives implementing systematic process optimization, customer relationship management, and operational enhancement achieve significantly better performance across multiple dimensions including profitability, market share, and growth indicators. Streamlining operations and focusing on business process improvements emerge as vital components for sustaining high performance levels in agricultural cooperatives, with the adoption of best practices and continuous process improvements enhancing operational efficiency and contributing to cooperative success. These results suggest that agri-based cooperatives in Kenya should prioritize optimizing their business processes to enhance performance through adopting best practices, investing in process automation, and continuously monitoring and improving business processes to ensure alignment with cooperative performance objectives. The study provides empirical evidence supporting the critical role of business processes strategy as a determinant of cooperative success in Kenya's agricultural sector, offering practical guidance for cooperative managers seeking to improve organizational effectiveness through systematic process management.

6.0 Recommendations

Recommendations are presented as managerial recommendations and policy recommendations. The study recommends that managers of agri-based cooperatives in Kenya should focus on optimizing internal business processes through thorough analysis of current operations to identify improvement areas, implementing best practices to streamline workflows, and investing in process automation technologies to reduce manual efforts and minimize errors. Managers should establish key performance indicators for data-driven decision making, prioritize training and capacity-building programs to equip teams with skills for effective data interpretation and organizational change leadership, and foster cross-functional collaboration to ensure inclusive and sustainable process changes across all cooperative departments. Additionally, managers should create a culture of continuous improvement by engaging members in feedback loops and innovation initiatives, conduct regular performance reviews and process audits to maintain alignment with cooperative objectives, establish clear communication channels to ensure stakeholder understanding of process changes, couple technology infrastructure investment with adequate staff training, and implement

change management strategies to minimize resistance and ensure smooth transitions during process improvements.

In addition, the study recommends that policymakers should invest in infrastructure development including roads, storage facilities, and communication networks to facilitate efficient cooperative operations and reduce transaction costs, while promoting adoption of quality standards and certification programs that help cooperatives meet domestic and international market requirements. Policymakers should develop digital platforms for cooperative data management and market access to enhance operational efficiency and connectivity, establish cooperative support hubs offering technical assistance, digital tools, and strategic advisory services, and provide incentives and grants for cooperatives adopting innovative business processes to encourage modernization and competitiveness. These initiatives should align with Kenya's Vision 2030 objectives and contribute to achieving Sustainable Development Goals, particularly SDG 1 (No Poverty), SDG 2 (Zero Hunger), SDG 8 (Decent Work and Economic Growth), and SDG 17 (Partnerships for the Goals), while creating financial support mechanisms enabling cooperatives to access affordable technology and training resources, developing regulatory frameworks supporting cooperative modernization while maintaining democratic principles, and encouraging public-private partnerships to leverage expertise and resources for cooperative development initiatives.

REFERENCES

- Ahmad, M., & Avianto, B. N. (2021). Governance innovation. *Theoretical and Empirical Researches in Urban Management*, 16(1), 40-60. <https://doi.org/10.3390/su11030729>
- Alabi, F. A., David, J. O., & Aderinto (2019). The impact of government policies on business growth of SMEs in Southwestern Nigeria. *International Journal of Management Studies and Social Science Research*, 5(1), 1-11.
- Cooper, D. R., & Schindler, P. S. (2014). *Business research methods: Data preparation and description*. McGraw-Hill Irwin. <https://doi.org/10.2139/ssrn.3389181>
- Cram, W. A., Fosso Wamba, S., & Bourke, P. (2019). Dynamic pricing strategies and customer analytics: Impact on retail performance. *International Journal of Retail & Distribution Management*, 47(12), 1312-1328.
- Echaaobari, S. G., Adim, C. V., & Ihunda, C. C. (2018). Collaboration strategy and employee performance in oil producing companies in Port Harcourt, Nigeria. *International Journal of Social Sciences and Management Research*, 4(3), 21-30.
- Foss, N. J., Pedersen, T., & Reinholt, M. (2020). Organizational design and knowledge sharing in multinational corporations: The mediating role of absorptive capacity. *Journal of International Business Studies*, 51(4), 530-556.
- Glover, D., & Levačić, R. (2020). The allocation of resources within an educational organization. In *Educational resource management: An international perspective* (2nd ed., pp. 71–88). UCL Press. <https://doi.org/10.14324/111.9781787358386>

<https://doi.org/10.53819/81018102t5389>

- Grobman, L., & Ramsey, E. M. (2020). Collaboration. In *Major decisions: College, career, and the case for the humanities* (pp. 123–132). University of Pennsylvania Press. <https://doi.org/10.9783/9780812296945>
- Guandaru, A. W. (2019). *Strategies deployed by Fly 540 Aviation Company to sustain competitive advantage* [Doctoral dissertation, University of Nairobi].
- Hawke, L. (2021). Performance management for success: Public sector organisations in Australia and the Philippines. In A. Podger, M. De Percy, & S. Vincent (Eds.), *Politics, policy and public administration in theory and practice: Essays in honour of Professor John Wanna* (1st ed., pp. 45–86). ANU Press. <https://doi.org/10.2307/j.ctv1sjwprm.10>
- Kang, S., & Jeong, H. Y. (2019). The effect of market orientation on performance of sharing economy business: Focusing on marketing innovation and sustainable competitive advantage. *Sustainability*, 11(3), 729.
- Karanja, J. (2019). Influence of product characteristics on credit accessibility of SACCO's in Kenya. *Journal of Finance and Entrepreneurship*, 6(1), 1-16.
- Kavulya, P. W., Muturi, W., Rotich, G., & Ogollah, K. (2018). Effect of customer focus strategy on the performance of SACCOs in Kenya. *International Journal of Business Strategies*, 3(1), 1-16. <https://doi.org/10.47672/ijbs.317>
- Kenya National Chamber of Commerce and Industry. (2021). *COVID-19: The great lockdown and its impact on small business*.
- Kiloh, K., Magutu, P. O., & Onger, R. N. (2020). Operations strategies and competitiveness of Kenyan cooperative sector. *Noble International Journal of Social Sciences Research*, 5(3), 22-33.
- Kinyuira, D. K. (2018). Influence of strategic purpose on sustainable performance of deposit taking savings and credit cooperatives in Kenya. *Journal of Strategy and Performance Management*, 6(3), 87-101.
- Kothari, C. R. (2017). *Research methodology, methods & techniques*. New International Publishers.
- Laite, K. (2018). Firm core business processes and the effect on performance. *Journal of Business Management*, 4(3), 61-69.
- Leyh, C., Bley, K., & Schäffer, T. (2020). Digitization of German enterprises in the production sector – Do they know how digitized they are? *Proceedings of the 22nd Americas Conference on Information Systems (AMCIS 2020)*.
- Li, K., & Hu, H. (2021). The transformation and upgrading of processing trade and its impact on firms' productivity. In L. Song & Y. Zhou (Eds.), *China's challenges in moving towards a high-income economy* (1st ed., pp. 175–196). ANU Press. <https://doi.org/10.22459/CCMTHE.2021.08>
- Li, K., & Jiang, W. (2018). China's foreign trade: Reform, performance and contribution to economic growth. In *China's 40 years of reform and development*. <https://doi.org/10.22459/CYRD.07.2018.28>

<https://doi.org/10.53819/81018102t5389>

- Li, M., Porter, A. L., & Suominen, A. (2018). Insights into relationships between disruptive technology/innovation and emerging technology: A bibliometric perspective. *Technological Forecasting and Social Change*, 129, 285-296. <https://doi.org/10.1016/j.techfore.2017.09.032>
- Lund, D. S., & Pollman, E. (2021). The corporate governance machine. *Columbia Law Review*, 121(8), 2563–2634.
- Masika, D., & Simiyu, E. (2019). Effect of firm characteristics on financial performance of deposit taking SACCOs licensed by SASRA in Nairobi, Kenya. *African Journal of Emerging Issues*, 1(4), 24-73.
- McNichols, M. F., & Stubben, S. R. (2018). Research design issues in studies using discretionary accruals. *Abacus*, 54(2), 227-246. <https://doi.org/10.1111/abac.12128>
- Mendling, J., Weber, I., & Van Der Aalst, W. (2024). Blockchain-enabled business process management: Performance implications and usage scenarios. *MIS Quarterly*, 48(1), 213-238.
- Mutea, E., Rist, S., & Jacobi, J. (2020). Applying the theory of access to food security among smallholder family farmers around North-West Mount Kenya. *Sustainability*, 12(5), 17-51. <https://doi.org/10.3390/su12051751>
- Ocasio, W., & Radoynovska, N. (2019). Strategy and commitments to institutional logics: Organizational heterogeneity in business models and governance. *Strategic Organization*, 14(4), 287-309. <https://doi.org/10.1177/1476127015625040>
- Okoyo, N. A. (2019). *Strategic role of savings and credit cooperative society on financial empowerment of female fish sellers at Homabay Town Fish Market, Kenya* [Doctoral dissertation, Maseno University].
- Rahimi, F., Møller, C., & Hvam, L. (2022). Business process ambidexterity and organizational performance: A meta-analytic investigation. *European Journal of Operational Research*, 296(2), 477-492.
- SASRA. (2022). *Licensed SACCO societies for period ending 31st December, 2021*.
- Sefeedpari, P., Shokoohi, Z., & Pishgar-Komleh, S. H. (2020). Dynamic energy efficiency assessment of dairy farming system in Iran: Application of window data envelopment analysis. *Journal of Cleaner Production*, 275, 124178. <https://doi.org/10.1016/j.jclepro.2020.124178>
- Sriram, P. K., & Stump, R. L. (2019). Business process management and firm performance: The role of organizational culture. *International Journal of Production Economics*, 218, 354-368.
- Van Kempen, L., Matelski, M., & Spierenburg, M. (2023). *Engaged scholarship and emancipation*. Radboud University Press.
- vom Brocke, J., Zelt, S., & Schmiedel, T. (2021). On the role of context in business process management. *International Journal of Information Management*, 47, 27-37.

<https://doi.org/10.53819/81018102t5389>

- Wanna, J. (2020). Business. In A. Gauja, M. Sawyer, & M. Simms (Eds.), *Morrison's miracle: The 2019 Australian federal election* (1st ed., pp. 373–396). ANU Press.
<https://doi.org/10.22459/MM.2020.19>
- Wilson, M., Karon, J., & Alamuddin, R. (2020). Development. In *Featuring YOU: A soft skills training and assessment program for opportunity youth* (pp. 16–24). ITHAKA S+R.
<https://doi.org/10.1242/dev.187815>
- World Health Organization. (2021). Business processes and workflows. In *Digital adaptation kit for antenatal care: Operational requirements for implementing WHO recommendations in digital systems* (pp. 28–48). World Health Organization.
- Xu, X., & Sun, L. (2020). Shipping container transportation cost adjustment method based on product life cycle. *Journal of Coastal Research*, 649–653. <https://doi.org/10.2112/SI103-132.1>
- Yifu, J., & Shen, Z. (2018). Reform and development strategy. In R. Garnaut, L. Song, & C. Fang (Eds.), *China's 40 years of reform and development: 1978–2018* (pp. 117–134).
<https://doi.org/10.22459/CYRD.07.2018.07>
- Zandee, D., Deen, B., Kruijver, K., & Stoetman, A. (2020). Conceptualising European strategic autonomy. In *European strategic autonomy in security and defence: Now the going gets tough, it's time to get going* (pp. 6–10). Clingendael Institute.