

Strategic Leadership Styles and Their Influence on Production Efficiency and Operational Performance in Broiler Hatchery Businesses: Basis for a Leadership Management Plan

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Abstract: This study investigates the impact of strategic leadership styles on the production efficiency and operational performance of broiler hatchery businesses, aiming to develop a leadership management plan that enhances overall business performance. In today's competitive poultry industry, leadership plays a pivotal role in shaping operational outcomes, particularly in hatchery management where efficiency and productivity are crucial. By examining how different leadership styles—such as autocratic, democratic, transactional, and transformational—affect day-to-day operations, this research seeks to uncover the connection between leadership practices and operational success. The study utilizes a quantitative approach, gathering data from key managerial personnel in broiler hatcheries. Through surveys and quantitative analysis, the research explores how leadership approaches influence both production efficiency and the quality of operational processes. The findings aim to offer insights that can inform better leadership practices, leading to more streamlined operations and improved performance. Ultimately, this study will provide a foundation for a leadership management plan that aligns with the unique needs of the broiler hatchery industry, promoting growth, productivity, and long-term success.

Keywords: Strategic Leadership, Production Efficiency, Operational Performance, Leadership Styles, Broiler Hatchery Business, Management Plan.

1. Introduction

A. Background of the Study

In the realm of broiler hatcheries, good leadership is crucial for both productivity and the success of the organization as a whole. Good leaders not only make sure that things run well, but they also help make the job environment a good place to work where people are inspired and engaged [1]. The culture of these companies is shaped by their leaders, which affects how the employees work together, cooperate, and reach production targets. There are different types of leadership, such as autocratic, democratic, transactional, and transformational.

Each type can have a different effect on how well the hatchery runs and how well it performs [2].

There are quite a lot of challenges that broiler hatchery managers have to deal with, like keeping production levels consistent, ensuring quality requirements are met, and making sure that both employees and customers are happy. In other fields, leadership training is often seen as crucial, but the link between different leadership styles and overall success in the poultry business has not been examined in depth. This study intends to fill this vacuum by looking into how different leadership styles affect the performance of hatchery operations. It will also give useful information on how leadership may boost productivity [3].

The main goal of this study is to find out how different ways of leading affect the success of broiler hatcheries. The main goal is to find out how strategic leadership can help hatchery firms adapt and grow in a market that is becoming more competitive [4]. This information shows that hatchery managers need to take a more careful approach to leadership in order to achieve better results and long-term growth [5].

B. Objective of the Study

The major purpose of this study is to find out how different types of strategic leadership affect the efficiency of production and the performance of broiler hatchery operations. The goal of this research is to come up with a leadership management strategy that can help hatchery managers improve their operations and overall performance by understanding these dynamics. This study is to find out how leadership can affect the success of hatcheries, which will help businesses get more done and run more smoothly.

1) Specific Objectives

To achieve this general objective, the study will focus on answering the following specific questions:

1. How can the leadership styles in broiler hatchery

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businesses be described in terms of management practices?

2. Is there a significant relationship between leadership styles and production efficiency in broiler hatchery businesses?
3. What strategic leadership management plan can be proposed to enhance production efficiency and operational performance in broiler hatchery businesses, based on the results of this study?

C. Significance of the Study

This study is quite useful for several individuals in the broiler hatchery industry since it gives them information that could help them become better leaders and, as a result, run their company better.

For hatchery managers, understanding the impact of leadership styles on operational efficiency is crucial. This can lead to higher profits and long-term success for their organizations. Managers can improve team chemistry, raise productivity, and streamline operations by using the correct leadership style. This can lead to higher profits and long-term success for their organizations. This study's results will give managers the information and resources they require to select the best leadership styles for their goals and challenges in the hatchery company.

For employees working in the broiler hatchery industry, the benefits of effective leadership cannot be overstated. A good leader establishes a work climate where individuals feel inspired, valued, and able to do their best. This study wants to help hatchery staff work better, collaborate together, and be happier with their jobs by looking at leadership styles that have a favorable effect on employee performance.

For broiler hatchery businesses in general, this study contributes to the overall knowledge of how leadership influences production efficiency and operational performance. Hatcheries can use the information from this study to come up with better ways to manage their companies, which will result in better performance, more efficiency, and lower expenses.

Lastly, for policy-makers and industry leaders, the study will serve as a foundation for designing better leadership development programs and training initiatives in the broiler hatchery sector. By fostering leadership capabilities that directly impact production and efficiency, these programs can support the growth and competitiveness of hatcheries on a broader scale.

2. Methodology

A. Research Design

The study used a quantitative research approach with both descriptive and correlational methodologies. The descriptive method identified what kinds of leadership styles were used in broiler hatchery businesses, and the correlational method examined at how those styles affected how efficiently the businesses ran. We used descriptive analysis on the survey data to arrive at how leadership affects how well a business runs.

B. Population and Sample of the Study

The study will focus on key managerial personnel in broiler hatchery businesses, including assistant vice president, general managers, department managers, and supervisors. The people that were chosen have experience in leadership roles. We utilized a purposive sample strategy to make sure that the people who took part were actively involved in making decisions and managing things. There were 38 people who answered the survey, and they gave useful information about how broiler hatchery enterprises lead their employees.

C. Research Instrument

Table 1
Likert scale for degree of agreement

Scale	Degree of Agreement	Interpretation
5	Strongly Agree	Respondent fully agrees
4	Agree	Respondent generally agrees
3	Neutral	Respondent neither agrees nor disagrees
2	Disagree	Respondent generally disagrees
1	Strongly Disagree	Respondent fully disagrees

This study made use of a survey questionnaire: The questionnaire was designed to gather data on respondents' demographic profiles, the leadership styles practiced within their hatchery operations, and their assessment of operational performance. It utilized a 5-point Likert scale to measure how frequently specific leadership behaviors—namely autocratic, democratic, transactional, and transformational—were applied. Additionally, the questionnaire included targeted items to assess key areas of production efficiency and operational effectiveness, such as consistency in output, task organization, and employee morale [6].

D. Data Collection Procedure

Data for this study were collected exclusively through the survey questionnaire, which was administered to key personnel working in broiler hatchery businesses. These included individuals holding strategic and operational positions such as Assistant Vice Presidents, General Managers, Department Managers, and Supervisors. Each participant was given a brief but clear explanation of the study's purpose, their role as a respondent, the voluntary nature of their participation, and the assurance of confidentiality [7].

To facilitate accessibility and maximize response rates, the surveys were distributed electronically. Participants were free to complete the questionnaire at their convenience, and they were informed of their right to decline or withdraw from the study at any stage without any negative consequences. All collected data were handled with strict adherence to ethical standards, ensuring both participant privacy and the integrity of the research process.

E. Statistical Treatment

The data in this study were analyzed using descriptive and inferential statistical methods.

Descriptive statistics, specifically mean and standard deviation, were calculated to summarize the respondents' ratings of leadership behaviours and operational performance.

To explore the relationships between leadership styles and performance, the study employed Pearson's correlation coefficient. This method measured the strength and direction of the linear relationship between each leadership style (autocratic, democratic, transactional, and transformational) and the indicators of operational performance such as productivity, organization, and employee morale.

All computations were conducted using SPSS software, with statistical significance evaluated at the 0.05 level.

3. Results and Discussion

Table 2
Respondents' age group

Item	Age Group	N	Percentage
1	18–29	15	39.47%
2	30–39	19	50.00%
3	40–49	2	5.26%
4	50 and above	2	5.26%
Total		38	100%

Table 3
Position in the organization

Item	Position in the Organization	N	Percentage
1	Section Manager	16	42.11%
2	Department Manager	8	21.05%
3	Supervisor	5	13.16%
4	General Manager	3	7.89%
5	Executives (AVP and	1	2.63%
6	Officer / Staff Level	4	10.53%
Total		38	100%

The age distribution of respondents is shown in Table. The 30–39 years old group made up the largest portion of the sample, comprising 50.00% of the respondents, followed by the 18–29 years old group at 39.47%. Smaller portions of the sample came from the 40–49 years old and 50 and above age groups, each contributing 5.26%. This shows that most of the respondents are relatively young, with the 30–39 age range

being the most represented. The high percentage of younger respondents suggests that leadership in broiler hatcheries may be influenced by a dynamic, evolving workforce that values flexibility, participation, and engagement.

Among the respondents, the most common position was Section Manager (16 respondents), followed by Department Manager (8 respondents), and Supervisor (5 respondents). The remaining respondents were from various executive roles, including the Assistant Vice President. This distribution indicates a balanced representation of mid-level managers and supervisors, with a few higher-level executives, which is ideal for understanding leadership styles across different organizational levels.

Table 4
Years of experience in poultry industry

Item	Years of Experience	N	Percentage
1	Less than 1 year	3	7.89%
2	1–5 years	12	31.58%
3	6–10 years	16	42.11%
4	More than 10 years	7	18.42%
Total		38	100%

The experience levels of the respondents varied, with the largest group having 6–10 years (16 respondents), followed by those with 1–5 years of experience (12 respondents). Fewer respondents had more than 10 years of experience (7 respondents) or less than 1 year of experience (3 respondents).

Table 5
Summary of leadership styles

Leadership Style	Mean	Standard Deviation	Interpretation
Autocratic	3.21	0.77	Moderately practiced; responses vary across hatcheries
Democratic	4.29	0.53	Strongly and consistently
Transactional	3.77	0.53	Frequently practiced with performance-based focus
Transformational	4.14	0.59	Widely practiced; leaders often inspire and support growth

To collect relevant data for the study, a well-structured survey questionnaire was developed. It focused on gathering information about the respondents' demographic background, the leadership styles they applied in their hatchery operations, and how they perceived these styles to influence production and performance. A 5-point Likert scale was used to determine how often specific leadership behaviors—such as autocratic, democratic, transactional, and transformational—were

practiced. The questionnaire also included items related to key areas of operational efficiency, such as consistency of output, task organization, and employee morale.

Descriptive statistics, including mean and standard deviation, were computed to summarize how frequently each leadership style was practiced. The results indicate that democratic leadership ($M = 4.29$, $SD = 0.53$) was the most consistently applied style, suggesting that many hatchery managers actively involve their staff in decision-making, value team input, and conduct discussions before finalizing actions—reflecting a modern shift toward collaborative management.

Transformational leadership ($M = 4.14$, $SD = 0.59$) was also widely practiced, highlighting a strong emphasis on motivation, employee development, and vision-setting, which aligns well with the competitive and innovation-driven nature of the hatchery industry [8]. Transactional leadership ($M = 3.77$, $SD = 0.53$), while moderately practiced, indicates that managers often rely on performance targets and reward systems, though this approach may lack the personal engagement fostered by transformational styles [9]. Autocratic leadership ($M = 3.21$, $SD = 0.77$) had the lowest mean and highest variability, suggesting that while some managers still rely on top-down control, many are transitioning toward more inclusive and developmental leadership practices.

To ensure that the content of the questionnaire was valid and aligned with the goals of the study, it was reviewed by three independent experts. These reviewers included an assistant vice president in the hatchery industry with over 20 years of executive leadership experience, and two university professors, each with more than two decades of expertise in management, engineering education, leadership, and academic research. Their insights were instrumental in refining the questionnaire to ensure clarity, relevance, and accuracy.

Before the actual data collection, the questionnaire was pilot-tested with 20 individuals who were not part of the main study. This helped verify that the items were well understood and measured consistently. The pilot results showed a Cronbach's alpha coefficient of 0.78, which indicates strong internal reliability. This step helped ensure that the data collected would be both credible and useful for the study's objectives, following the standards of previous leadership research (Nyukorong, 2016) [10].

To determine whether leadership styles are related to the operational performance of broiler hatchery businesses, correlation using Pearson's r was computed. The results revealed that transformational leadership is positively and significantly related to operational performance ($r = 0.433$, $p = 0.007$) [11]. This suggests that hatchery managers who demonstrate inspirational motivation, support employee development, and foster a shared vision are more likely to achieve higher performance outcomes. Transactional leadership also showed a moderate positive correlation with performance ($r = 0.308$, $p = 0.060$), though this relationship did not reach statistical significance at the 0.05 level [12]. Meanwhile, autocratic leadership ($r = 0.205$, $p = 0.216$) and democratic leadership ($r = 0.183$, $p = 0.272$) were both positively but weakly correlated with performance, and neither

correlation was statistically significant. These findings imply that among the leadership styles evaluated, transformational leadership is the most influential in driving operational efficiency in broiler hatchery settings [13].

Table 6
Correlations

		Autocratic	Democratic	Transactional	Transformational	Performance
Autocratic	Pearson Correlation	1	-.475**	-.073	-.161	.205
	Sig. (2-tailed)		.003	.664	.335	.216
	N	38	38	38	38	38
Democratic	Pearson Correlation	-.475**	1	.457**	.509**	.183
	Sig. (2-tailed)	.003		.004	.001	.272
	N	38	38	38	38	38
Transactional	Pearson Correlation	-.073	.457**	1	.368*	.308
	Sig. (2-tailed)	.664	.004		.023	.060
	N	38	38	38	38	38
Transformational	Pearson Correlation	-.161	.509**	.368*	1	.433**
	Sig. (2-tailed)	.335	.001	.023		.007
	N	38	38	38	38	38
Performance	Pearson Correlation	.205	.183	.308	.433**	1
	Sig. (2-tailed)	.216	.272	.060	.007	
	N	38	38	38	38	38

** Correlation is significant at the 0.01 level (2-tailed).

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

A. Proposed Strategic Leadership Management Plan

Based on the findings of this study, transformational leadership was identified as the most positively and significantly related to operational performance in broiler hatchery businesses. To strengthen productivity and employee engagement, a strategic leadership management plan is

1) Emphasize Transformational Leadership Practices

- Conduct leadership development training focused on communication, motivation, and vision-setting.
- Encourage managers to support employee growth and innovation.
- Promote a culture of shared goals and continuous improvement.

2) Integrate Transactional Techniques for Performance Management

- Use clear performance targets and reward systems to maintain discipline and accountability.
- Recognize and incentivize consistent productivity and adherence to hatchery protocols.

3) Reframe Autocratic Practices for Operational Control

- Apply directive leadership only in high-stakes or time-sensitive scenarios (e.g., biosecurity breaches, emergencies).
- Minimize overuse of top-down control to maintain employee morale.

4) Promote Inclusive Decision-Making through Democratic Leadership

- Involve teams in non-urgent decision-making processes to improve buy-in and morale.
- Use suggestion systems, feedback sessions, and planning meetings to engage employees.

5) Establish Monitoring and Evaluation Mechanisms

- Periodically evaluate leadership effectiveness using employee feedback and productivity metrics.
- Adjust leadership development strategies based on performance outcomes and organizational goals.

4. Conclusion

This study set out to understand how different leadership styles—autocratic, democratic, transactional, and transformational affect the day-to-day operations and overall efficiency of broiler hatchery businesses. Based on the quantitative analysis using Pearson correlation, transformational leadership was found to have the strongest positive and statistically significant relationship with operational performance ($r = 0.433$, $p = 0.007$).

Transactional leadership also showed a moderate positive correlation ($r = 0.308$, $p = 0.060$), though not statistically significant. Autocratic ($r = 0.205$, $p = 0.216$) and democratic leadership ($r = 0.183$, $p = 0.272$) were weakly correlated with performance and did not reach significance.

These findings suggest that hatchery operations benefit most from transformational leadership approaches that emphasize employee motivation, development, and a shared vision. Therefore, a Strategic Leadership Management Plan should prioritize transformational leadership while incorporating transactional strategies to maintain accountability. Future research may explore how these leadership styles impact other variables like innovation, employee retention, or customer satisfaction in the poultry industry.

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