

Issues of Introducing Innovation to Small Businesses

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DOI : <https://doi.org/10.61796/ijaifd.v2i2.305>



Sections Info

Article history:

Submitted: February 01, 2025

Final Revised: February 03, 2025

Accepted: February 04, 2025

Published: February 05, 2025

Keywords:

Innovation

Traditional technology

Innovative technology

Net profit

Profitability

Labor productivity

Product cost

Economic efficiency

ABSTRACT

Objective: This study examines the economic implications of adopting innovative technologies in small business manufacturing settings compared to traditional methods. **Method:** A systematic comparative analysis was conducted by evaluating key economic indicators – including productivity, cost efficiency, and profitability – across a sample of small business entities producing tangible products, with data gathered through quantitative methodologies and supported by case studies. **Results:** Findings reveal that businesses integrating innovative technologies experience significant improvements in operational efficiency and competitive positioning, demonstrating enhanced financial performance relative to those employing conventional practices. **Novelty:** The research contributes novel insights by identifying critical factors that drive the successful implementation of innovative strategies within small enterprises and by proposing tailored recommendations for optimizing technology adoption. These insights provide a framework for understanding the interplay between technological innovation and economic performance in small business contexts, offering a valuable basis for future studies and policy development aimed at fostering sustainable growth and resilience in the sector.

INTRODUCTION

Today, the innovation system in society is developing so rapidly that the level of innovation coverage in the economy is increasing day by day, and as a result, innovation is becoming a major asset of the country, just like minerals, production capacity, and intellectual potential [1].

As a result of the work carried out in our republic to support innovation and its application in small businesses, this system is increasingly strengthened, and its role in the economy of our republic, its contribution to employment and product production is increasing year by year .

Today, as a result of the reforms carried out in our country to introduce innovation into production, modern and high-quality products are being produced in all sectors of the industry, especially small businesses. However, not enough research has been conducted on the application of innovative technology in shoe production and the calculation of economic efficiency indicators. It is advisable to conduct research on the economic efficiency indicators of shoe production and calculate the following indicators of its application in practice [2]:

1. 1-day shoe production volume, pairs [3];
2. Total production cost of 1 pair of shoes, thousand soums;
3. Selling price of 1 pair of shoes, thousand soums;

4. Annual shoe production volume, pairs [4];
5. Total production costs, thousand soums;
6. Annual shoe production value, thousand soums;
7. Cost of 1 pair of shoes, thousand soums ;
8. Labor spent on 1 pair of shoes, person/hour [5];
9. Total net profit, thousand soums [6];
10. Net profit per 1 pair of shoes, thousand soums [7];
11. Net profit per person-hour for 1 pair of shoes, thousand soums;
12. Profitability, [8] %.

Review of literature on the topic. The essence and significance of innovation are noted in the innovative works of the representative of the classical economic school A. Smith, who described the relationship between the theory of exchange and production. The economist D. Ricardo substantiated the sustainable development of the economy based on innovations in agriculture and resource conservation [9].

Russian scientist ND Kondratev in his discovery "Long Waves" associated these waves with changes in technological processes, which are a radical change in technology and means of producing goods and services. Later, his theory was continued by S.Yu. Glazev, who linked the change in technological processes with the innovative renewal of society. Austrian scientist Y.A. Schumpeter substantiated the importance of innovation as a key factor in the socio-economic development of society, and also studied the circulation of innovation in a market economy, according to which the structure of the economy and the development of a new one are formed by the destruction of the old one [10].

Also, economist M.V. Posner showed in his scientific work that a firm gains competitive advantages through the introduction of technological innovations, which leads to a decrease in costs. M.Yu. Porter, in his scientific approach to innovation, based on an analysis of the competitiveness of more than 100 sectors of the economy of leading countries of the world, concluded that enterprises should focus on their competitive advantages, including the introduction of innovations and improving production [11].

RESEARCH METHOD

The study of existing scientific research on ways to attract innovative technologies to small business entities producing footwear and their effective use, analysis and comparison of annual statistical reports of small business entities, logical thinking, scientific abstraction, grouping of information, analysis and synthesis, induction and deduction methods were widely used [12].

RESULTS AND DISCUSSION

The essence of innovative technology is to produce high-quality shoes from raw materials based on the creation of all necessary technological conditions for the

development of shoe production, as well as to reduce the cost of shoe production and increase product profitability.

When determining the economic efficiency of an innovative technology, it is advisable to compare its economic indicators with those achieved with the traditional technology in practice. In this way, we will be able to know how much the economic efficiency of the innovative technology has increased, and a comparative analysis of the innovative technology with the traditional technology is presented in Table 1.

Table 1. Comparative analysis of the economic efficiency of shoe production using traditional technology at “Kosonsoy Al-Aziz” LLC and innovative technology at “ELEGANT PODOSHVA KLASS” LLC

T/R	Indicators	By traditional technology	On innovative technology	The difference between innovative technology and traditional technology	
				+, -	%
1	1-day shoe production capacity, pairs	100	594	494	494
2	Total production cost of 1 pair of shoes, thousand soums	75.7	70.2	-5.5	-7.2
3	Cost of shoe production per day, thousand soums (1x2)	7570.0	41698.8	34128.8	450.8
4	Price of 1 pair of shoes, thousand soums	103.5	103.5	0	0
5	Annual shoe production volume, pairs	28000	47907	19907	710.9
6	cost of goods sold , thousand soums, (5x8)	1923600.0	3022931.7	1099331.7	57.1
7	Annual shoe production cost, thousand soums (2x5)	2119600.0	3363071.4	1243471.4	58.7
8	Cost of 1 pair of shoes, thousand soums (6:5)	68.7	63.1	-5.6	-8.2
9	Annual actual working time, man-hours	36146	36146	0	0
10	Labor spent on 1 pair of shoes, man-hours (5:9)	0.77	1.33	0.55	71.4
11	Total net profit, thousand soums (7-6)	196000.0	340139.7	144139.7	73.5
12	Net profit per 1 pair of shoes, thousand soums (4-8)	34.8	40.4	5.6	16.1

13	per person-hour , thousand soums (11:9)	5.42	9.41	3.99	73.5
14	Profitability, % (11:6x100)	10.2	11.3		1.1

Today, the demand for high-quality and affordable shoes is growing in the market. Meeting the demand for shoes is currently one of the most pressing issues of a market economy. In particular, it is becoming increasingly difficult to produce shoes for teenagers aged 7-17 and fully meet the needs of consumers. Because, as the population in our country grows day by day, it is necessary to increase the volume of shoe production accordingly.

According to the Namangan Regional Statistics Department, the total population of the region at the end of 2023 was 2,994,671 people, and when divided by age group, the number of adolescents aged 7-17 was 630,838, or 21.1 percent of the total population. At the end of 2019, the total population was 2,752,880, an increase of 241,791 people or 8.1 percent compared to 2023. It was also revealed during the analysis that in 2023, the number of adolescents aged 7-17 increased by 71,895 people or 11.4 percent compared to 2019. The number of adolescents aged 7-17 in the districts of Namangan region in 2019-2023 is shown in Table 2 below.

Table 2. Information on the number of adolescents aged 7-17 in Namangan region in 2019-2023

Districts	2019 - year	2020 - year	2021 - year	2022 - year	2023 - year	In 2023 to 2019 relatively difference	
						(+, -)	In percent
Total population of Namangan region	2752880	2810843	2867441	2931056	2994671	241791	108.1
<i>From him ,</i>							
Total number of adolescents aged 7- 17	558943	573895	591298	611068	630838	71895	111.4
Namangan city .	132210	135508	141563	146569	151575	19365	112.8
Mingbulak	25707	25910	26322	26886	27450	1743	106.3
Kasonsoy	42976	44566	45615	46761	47907	4931	110.3
Namangan	35673	36913	37642	39189	40736	5063	112.4
Narin	31218	32435	33717	34908	36099	4881	113.5
Pop	42116	43319	44593	45704	46815	4699	110.0

Turaqrgan	41112	42219	43730	45522	47314	6202	113.1
Housekeeper	44249	45427	46263	47795	49327	5078	110.3
Uchkurgan	33632	34554	35498	36948	38398	4766	112.4
Common card	39365	40608	42179	43821	45463	6098	113.4
C h u s t	46915	48026	49276	51398	53520	6605	112.3
Yangikurgan	43770	44410	44900	45567	46234	2464	105.3

According to the table above, in 2019-2023 The population in the region has increased. In particular, in Kosonsoy district, the number of adolescents aged 7-17 in 2023 will increase by 4,931 compared to 2019. or 110.3 percent increased We can see this in the district. small shoe manufacturing businesses by teenagers aged 7-17 fits sizes 30-39 shoes production output requires an increase. The table data shows that in order to provide a total of 47907 adolescents aged 7-17 in Kosonsoy district with a complete set of shoes, it is necessary to produce such a quantity of shoes. Therefore, the economic efficiency indicators of the use of modern innovative technology at “Kosonsoy Al-Aziz” LLC were assessed. In this regard, the economic efficiency indicators of the innovative technology at “ELEGANT PODOSHVA KLASS” LLC in Uychi district of Namangan region were compared with the economic efficiency indicators of the traditional technology currently used at “Kosonsoy Al-Aziz” LLC.

If we analyze the data from the comparison table of traditional and innovative technologies, in 2023, “Kosonsoy Al-Aziz” LLC has a total production capacity of 100 pairs of shoes per day based on the traditional technology currently used, and the cost of producing shoes per day is 7,570.0 thousand soums. Also, in 2023, the cost of 1 pair of shoes was 68.7 thousand soums, and its selling price was 103.5 thousand soums, and a total of 56 employees who worked on a seasonal work plan at the small business entity produced a total of 28,000 pairs of shoes for teenagers aged 7-17, spending a total of 36,146 hours of time.

The CF-1610T laser innovative technology from the Chinese enterprise “QUANZHOU BAIYU MACHINERY TECHNOLOGY CO.” LTD was purchased by “ELEGANT PODOSHVA KLASS” LLC in 2022 for 15 thousand US dollars, and the performance of this technology is currently being implemented in the practice of the enterprise. The data from its technical passport were used to assess the production efficiency indicators of the CF-1610T innovative technology. The hourly production volume of the CF-1610T innovative technology is 150 pairs and the daily electricity consumption is 14 kW. Using these indicators, the economic efficiency indicators of shoe production at “Kosonsoy Al-Aziz” LLC were recalculated and analyzed.

In the case of “Kosonsoy Al-Aziz” LLC, the daily production volume of shoes using the innovative technology CF-1610T is 594 pairs, that is, the total working hours worked by employees in the small business entity in 2023, based on the total number of

adolescents aged 7-17 in the district. Therefore, the demand for shoes by adolescents aged 7-17 in the district is 47,907 pairs. Note that the only small business entity in the district that produces shoes of sizes 30-39 for adolescents aged 7-17 is "Kosonsoy Al-Aziz" LLC, which produced a total of 28,000 pairs of shoes in 2023, and an additional 19,907 pairs of shoes will need to be produced to fully meet the demand.

In addition, if we pay attention to the cost of 1 pair of shoes, then in traditional technology it is 68.7 thousand soums, while in innovative technology it is 63.1 thousand soums. The reason is that the daily electricity consumption of the innovative technology of the CF-1610T brand is 14 sq. m., and the current cost is 6300 soums, which corresponds to 10.6 soums per 1 pair of shoes. In traditional technology, this cost is 1063 soums. Also, if in traditional technology the number of daily employees is 3 people, then in innovative technology 1 person is employed, and as a result, in accordance with the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 54 dated February 5, 1999, the amount of labor costs and social insurance contributions in the cost of shoe production has decreased [13].

2023 year, the net profit of "Kosonsoy Al-Aziz" LLC was 196,000.0 thousand soums under traditional technology, while it was 340,139.7 thousand soums under innovative technology, and the amount of net profit increased by 73.5%. Also, if the profitability index was 10.2 percent under traditional technology, it will be possible to achieve 11.3 percent under innovative technology [14].

In addition, the analysis showed that the innovative technology achieved a positive result in terms of labor productivity. In particular, if in the traditional technology 1 person spent 1 hour to produce 0.77 pairs of shoes, then in the innovative technology it is possible to produce 1.33 pairs of shoes in the same time period. Also, if in the traditional technology 1 person earned 5.42 thousand soums per hour, then in the innovative technology 1 person earns 9.41 thousand soums per hour, or 73.5% more net profit [15].

CONCLUSION

Fundamental Finding : The analysis identifies several strategic directions for integrating innovative technology into small footwear businesses targeting teenagers, emphasizing state support, infrastructure modernization, alternative raw material sourcing, and enhanced international collaboration. **Implication :** These measures are expected to boost production efficiency, foster competitive parity, and stimulate economic growth within the footwear manufacturing sector. **Limitation :** However, challenges such as limited financial resources, infrastructural constraints, and variable rates of technology adoption may impede the effective implementation of these innovations. **Future Research :** Further empirical studies are warranted to assess the long-term impact of these interventions and to refine strategies that can be adapted across different market conditions and geographical contexts.

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