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The Production Process of the Convection Business in Nagari Batu Taba, Ampek Angkek District, West Sumatra

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Abstract. The convection industry in Batu Bata is a major contributor to the local community's income, as evidenced by the numerous businesses that have been passed down through generations and have experienced successful growth. However, as a home-based convection industry, some businesses have faced challenges such as a lack of product planning that caters to customer needs and fashion trends, inadequate management of the workforce, including a lack of a permanent workforce, poor regulation of employee working hours, and an unclear wage system. This study seeks to examine the production processes employed by entrepreneurs in Batu Taba, focusing specifically on production planning, production processes, and quality control. A quantitative descriptive method was used, utilizing data collected from surveys, interviews, and observations. The results indicated that 47% of respondents had effective production planning and 53% did not. 74% of respondents carried out the production process appropriately, while 25% did not. 78% of respondents carried out quality control effectively, and only 22% did not carry out the quality control process properly.

Keywords: Production process, business, convection.

INTRODUCTION

The convection business in Nagari Batu Taba, Ampek Angkek District is renowned as an area with a high concentration of convection entrepreneurs in Agam Regency, having been developed for generations. According to a 2020 survey conducted by the BPS for the Agam Regency area, the majority of the convection industries are located in the Ampek Angkek area, as evidenced by the large number of individuals working as convection entrepreneurs and the area's reputation as a hub for home industries. The development of the convection business in Batu Taba is also influenced by the availability of ample manpower, convenient marketing centers, and raw materials in proximity to production areas. Wasis (2008) defines business as a human effort to achieve certain goals and to fulfill everyday life need. The convection business is a small-scale mass clothing enterprise that produces standard sizes such as S, M, L, and extra L sizes (Rianto, 2003). Jerusalem (2011) describes that the products produced in the convection business include apparel such as t-shirts, shirts, robes, jackets, school uniforms, etc. in the convection business are in the form of apparel such as t-shirts, shirts, long dress, jackets, school uniforms and so on.

However, managing a business is not free from various obstacles and challenges, particularly in the face of intense competition in the current industrial world. Entrepreneurs are therefore expected to be able to effectively analyze and plan various aspects of production activities to minimize future losses. The obstacles faced by most convection entrepreneurs in Batu Taba include immature planning, inadequate production management, and limited tools and fabrics.

The Covid-19 pandemic has had a significant impact on the economic sector of the community, resulting in a decline in many industries. To address these shortcomings, some entrepreneurs have had to close their businesses, while others have reduced their production activities. Some have sought to minimize losses by collaborating with other industries. However, many small businesses in Batu Taba are struggling to survive by implementing various strategies and methods. The problems identified through interviews with the Wali Nagari and 10 small businesses in Batu Taba include decreased production of clothing, difficulty in marketing products, lack of planning due to limited tools and fabrics, poor capital management, and weak quality control processes.

Production is a crucial aspect of running a small business. Sugiarto (2002) defines production activity as a process in which inputs are transformed into outputs in the form of product functions. The product function determines the maximum amount of output that can be produced using a certain technology and a set of inputs. Haming (2014) also put forward the definition of production, which is the process of transforming inputs into outputs, both in the form of goods and services, using certain methods.

The production process encompasses several aspects, including production planning, which then is divided into manpower planning, capital planning, technology or machinery planning, and raw material planning. Assauri (in Zahri, 2018) defines production planning as the prior organization and arrangement of labor, materials, equipment, and capital to produce goods at an expected period in the future. Further, Assauri (in Zahri, 2018) elaborated that the aspect of the production process is the transformation of inputs into outputs through activities that produce goods or services, as well as supporting activities that aid businesses in producing these products.

Regarding quality control in production supervision, Alma (2013) describes its function, which is to maintain smooth operation from raw materials to finished goods in the shortest time and at the lowest cost. This requires the coordination of various factors, including materials, machines, labor, and methods. Based on interviews with several convection businesses, it was found that many production processes, including sewing, are conducted at the workers' homes, with instructions and procedures provided. As a result, direct labor regulates working hours in these production activities. Additionally, it was observed that many convection businesses in Batu Taba collaborate with other businesses or textile shops to address capital deficiencies. Some convection businesses also adjust their number of workers to meet production needs, leading to a lack of permanent workforces. Thus, the purpose of this study is to examine the production process used by convection entrepreneurs in Nagari Batu Taba, with a focus on production planning, implementation, and quality control.

METHODS

This study employs a quantitative descriptive method to systematically examine production planning (including workforce planning, capital planning, technology or machinery planning, and raw material planning), production process, and quality control for convection businesses in Nagari Batu Taba, Ampek Angkek District, Agam Regency, West Sumatra. The data were collected from questionnaires and observations of 55 convection entrepreneurs, which were analyzed using percentage analysis. The research instrument used in this study was a questionnaire with a Likert scale measurement, comprising four alternative responses (Always, Often, Rarely, and Never).

RESULTS AND DISCUSSION

Respondents involved in this study were from six *Jorong* in Nagari Batu Taba. The results of the study are described as follows.

Production Planning

TABLE 1 depicts the results of data analysis regarding production planning in the convection business in Nagari Batu Taba.

TABLE 1. Production planning analysis

No	Indicator	Average							
		Always		Often		Rarely		Never	
		F	%	F	%	F	%	F	%
1	Manpower Planning	7	13	17	31	20	36	11	20
2	Business Capital Planning	5	9	15	27	20	36	15	27
3	Technology or Machine Planning	15	27	11	20	9	16	20	36
4	Raw Material Planning	11	20	19	35	21	39	3	6
Total		38		62		70		49	
Average		10		16		18		12	
Average (%)		18		29		32		21	

The research results indicate that, in general, 32% of convection businesses rarely conduct proper production planning, with only 18% of businesses properly executing production planning. Some convection businesses in Batu Taba initially plan the production process, but over time, certain aspects become no longer planned. The study found that 47%, comprising 18% (Always) and 29% (Often) of the respondents, effectively carried out production planning. However, a majority, 53%, comprising 32% (Rarely) and 21% (Never) of respondents, did not plan production well. Based on percentage criteria, it can be inferred that production planning for convection businesses in Nagari Batu Taba is inadequate.

According to Siagian (2002), planning can be defined as a forward-looking decision-making process that encompasses actions to be taken within a specified time frame. Through planning, one can anticipate and predict the outcomes of certain conditions and situations, thereby ensuring the production of high-quality products. Nureza (2021) posits that production planning is the foundation of any business, requiring meticulous planning and an efficient system for the smooth running of production operations. Supriyanto (2009) further elaborates that good business planning increases the chances of business success, as it is a process, not just planning. In production planning, four aspects are studied, namely manpower planning, capital planning, technology or machinery planning, and raw material planning

Manpower Planning

TABLE 2 presents the results of data analysis regarding manpower planning in the convection business in Nagari Batu Taba.

TABLE 2. Manpower planning analysis

No	Statement	Alternative Answer							
		Always		Often		Rarely		Never	
		F	%	F	%	F	%	F	%
1	Planning the number of workforces	0	0	34	62	21	38	0	0
2	Setting working hours	0	0	2	4	7	13	46	83
3	Recruiting workforce based on education, experience, and competence	1	2	19	35	32	58	3	5
4	Employee competency	2	3	12	22	34	62	7	13
5	Pre-recruitment testing	32	58	18	33	4	7	1	2
Total		35		85		98		57	
Average		7		17		20		11	
Average (%)		13		31		36		20	

Referring to the indicator of “Planning the number of workforce”, 62% of respondents reported planning for the number of workers needed to meet production demands, while 38% reported rarely doing so. Convection businesses typically plan for a set number of workers, but some businesses may have more fluid staffing needs due to fluctuations in product production. For example, businesses with a high volume of product production may hire temporary workers to meet demand, while businesses with a more stable production schedule may rely on permanent staff. As stated by Grinold in Sartin (2008), manpower planning within an organization involves ensuring the appropriate number and type of personnel in the appropriate place at the appropriate time to meet organizational needs.

In the indicator of “Setting working hours”, 83% of respondents reported never setting specific working hours for their employees, with only 4% indicating that they often do so. This is likely because a large majority of convection businesses in Batu Taba allow their workers to complete the sewing process at their own homes, thus allowing for more flexibility in terms of working hours. However, 16% of these businesses have regulated working hours, as the entire production process is conducted within the production house. As noted by Kezia (2014), flexible work arrangements can include a variety of options for determining when and where work is performed, which can be beneficial for employees.

Additionally, only 2% of respondents reported paying significant attention to education, experience, and competence when recruiting workers, with 58% indicating that they do consider these factors. This is likely due to a large number of factory workers in Batu Taba being recruited from the local community and primarily housewives, who are often valued for their skills and expertise rather than formal qualifications. As Siagian (2002) posits, an employee looking to advance their career must possess a variety of knowledge, abilities, and skills that are relevant to the business they are working for.

As noted by Karyoto (2016), skills are the abilities of workers to perform certain tasks and produce optimal results. On the indicator “Employee competency”, only 3% of respondents reported expecting their employees to possess a certificate or other form of proven competency, while 62% stated that they do not have specific expectations in this regard. However, despite many of the workers in these businesses coming from the surrounding community, many business owners still expect workforces with competence and certifications. 13% of respondents indicated that they did not require certifications of competency, but rather sought workers with skills and abilities that could be recognized by the business and who could follow existing instructions.

Concerning pre-recruitment tests, 58% of respondents reported administering such tests when recruiting workers, while only 2% indicated that they did not use such tests. Convection businesses in Batu Taba often conduct tests on prospective workers for identifying where to place them. However, some businesses may not conduct skills tests on potential hires due to their familiarity with the individual or their reputation as skilled workers in the sewing industry. Additionally, some applicants may have already received formal training or education in fashion design or sewing, which also eliminates the need for additional testing.

In terms of work placement, a majority of respondents (64%) reported placing workers based on their skills, while a significant minority (27%) reported placing workers based on available job openings. A small percentage (5%) reported placing workers based on a combination of skills and available jobs available. This indicates that most convection businesses in Batu Taba prioritize skill-matching when placing workers, but some also consider job vacancies. Usually, the business owner will provide training and trial periods to assess the worker's performance and suitability for the position. After the workforce has received training, the business owner will determine whether the workforce is fit to work. Suwatno (2003) maintains that effective workforce placement involves aligning employees' abilities, skills, and expertise with appropriate positions to optimize productivity.

In terms of wage systems, the majority of respondents (95%) reported using a piece-rate pay, while a smaller percentage (7%) reported using a daily-rate pay. The piece-rate pay, in which wages are calculated based on the volume of output produced by a worker in a given time, is commonly used in convection businesses in Batu Taba. Conversely, the daily-rate pay, in which wages are calculated based on hours worked, is typically used for workers in production houses or material-cutting sections who only work for a day or two days a week. Rivai (2012) mentions that determining wages can be done by analyzing the position or task assigned, evaluating the position, conducting a wage survey, and determining the wage level.

Finally, the study found that only 44% of respondents reported having carried out effective manpower planning, while 56% reported not having done so. This indicates that manpower planning for convection businesses in Nagari Batu Taba is still lacking.

Business Capital Planning

TABLE 3 provides details on the results of data analysis regarding capital planning in the convection business in Nagari Batu Taba.

TABLE 3. Capital planning analysis

No	Statement	Alternative Answer							
		Always		Often		Rarely		Never	
		F	%	F	%	F	%	F	%
1	Recording transactions in the cash book	7	13	14	25	23	42	11	20
2	Calculation of business capital in detail	4	7	16	29	17	31	18	37
Total		11		30		40		29	
Average		5		15		20		15	
Average (%)		9		27		36		27	

In the indicator of "Recording transactions in the cash book", a majority of 42% of respondents rarely document business transactions in their cash book, while only a minority of 13% always record transactions in their cash book. Based on the research results, the convection business initially made a description of business capital in the cash book, but for the production of the same product, they did not re-record transactions in the cash book unless there is a change in the price of capital. For most of the convection businesses in Batu Taba, cash books come from bills of purchase of materials. According to Kasmir (2010), effective cash management is crucial for maintaining a company's liquidity and utilizing cash flow, thus, financial management must be able to manage both inflows and outflows.

Additionally, in terms of calculating capital, the majority of 37% of respondents do not meticulously compute business capital, while only a small percentage of 7% do so in detail. Some of the convection businesses in Batu Taba have a capital calculation system called calculation. This system relies on a list of proof of purchase of materials and other capital to directly calculate the amount of capital, selling price, and profit to be earned Sukirno (2009) asserts that business capital is incurred to purchase production equipment and capital goods, which are essential to increase capital in economic activities used to produce goods and services. Therefore, it is crucial to accurately calculate expenses to determine the price.

In terms of the origin of business capital, a majority of 73% of respondents cited the use of their own capital as the primary source for funding their ventures, while a minority of 9% reported utilizing loans, and 18% cited collaborations with other businesses as sources of capital. The research results indicate that the majority of convection businesses in Batu Taba opt to use their own capital, as it allows for greater predictability in terms of production without the need to consider borrowing. Additionally, some businesses may have initially utilized bank loans, but subsequently shifted to using their own capital as they paid off those loans.

On the other hand, businesses that wish to avoid loans often choose to collaborate with other businesses, such as textile shops in the Aur Kuning market, where fabric loans are extended with the expectation of repayment after the product is sold within a specific time frame. As stated by Brighan and Houston (in Naur 2017: 1), capital structure decisions can have a significant impact on the level of risk borne by shareholders and the level of profitability expected by the company.

In terms of capital planning, the study found that 36% of respondents reported having carried out adequate planning, while 63% reported not having done so. This suggests that capital planning among convection businesses in Nagari Batu Taba is generally lacking.

Technology or Machine Planning

TABLE 4 presents the results of data analysis regarding technology and machine planning in the convection business in Nagari Batu Taba.

TABLE 4. Technology and machine planning analysis

No	Statement	Alternative Answer							
		Always		Often		Rarely		Never	
		F	%	F	%	F	%	F	%
1	Sewing machines are provided by convection business	22	40	12	22	12	22	9	16
2	The convection business rents a sewing machine for production activities	0	0	2	4	7	13	46	84
3	The convection business provides all supporting sewing machines	3	5	13	24	18	33	21	38
4	The business avails of the services of rented sewing machines.	12	22	12	22	6	11	25	45
5	The convection business provides supporting sewing equipment	39	71	16	29	0	0	0	0
Total		76		55		43		101	
Average		15		11		9		20	
Average (%)		27		20		16		36	

40% of respondents always provide sewing machines for their workforce, while 16% do not provide any sewing machines. This suggests that some workers bring their own equipment and tools, making it unnecessary for the business owners to provide these resources.

Additionally, 84% of respondents did not rent a sewing machine, and only 2% of respondents rented a sewing machine to fulfill production equipment. Most sewing machines are purchased directly by business owners according to the number of machines needed. According to business owners, renting a sewing machine would increase costs and not be a sustainable solution for long-term production. Furthermore, the availability of supporting sewing machines, such as overlock machines, buttonhole machines, and press machines, was limited.

In terms of the availability of supporting sewing machines in the form of overlock machines, buttonhole machines and press machines, 38% of respondents did not provide all types of supporting sewing machines, and only 5% of respondents provided all supporting sewing machines. This indicates that while some businesses have attempted to acquire these resources, not all convection businesses have the means to do so. As such, many convection businesses in Batu Taba rely on wage services for supporting sewing machines provided by other ventures.

The majority of convection businesses in Batu Taba do not rely on the use of wage services for supporting sewing machines. In fact, 45% of respondents reported not utilizing such services at all, while only a small percentage (11%) rarely did so. This suggests that many businesses have taken the initiative to equip themselves with the necessary machines for their production process. However, for those businesses that may lack certain machines or tools, the use of wage services for supporting equipment may be necessary.

In addition, the study revealed that the majority of respondents (71%) have equipped themselves with various types of supporting sewing tools, whereas 29% have not. This indicates that most businesses in Batu Taba have taken steps to ensure they have the necessary equipment to facilitate their production processes. As Prawirosentono (in Jasasila 2017) stated, the quality of production is dependent on several factors, one of which is the use of machines that are in accordance with the specified technology and are in proper working condition.

However, the study also found that technology or machine planning for the convection businesses in Nagari Batu Taba is not well-executed, with 52% of respondents reporting poor planning. Specifically, 47% of respondents had carried out planning well, while the remaining 52% had not carried the planning well.

Raw Material Planning

TABLE 5 shows the results of data analysis regarding raw material planning in the convection business in Nagari Batu Taba:

TABLE 5. Raw material planning analysis

No	Statement	Alternative Answer							
		Always		Often		Rarely		Never	
		F	%	F	%	F	%	F	%
1	Raw material planning according to the product to be produced	22	40	32	58	0	0	1	2
2	Purchase of raw materials for stock needs	10	18	17	31	24	44	4	7
3	Recording of material stock list or inventory	2	4	8	15	40	73	5	9
Total		34		57		64		10	
Average		11		19		21		3	
Average (%)		20		35		39		6	

In terms of raw material planning, 58%of convection businesses surveyed reported that they always plan raw materials according to the product to be produced, while only 2% stated that they do not plan raw materials. This indicates that many businesses in the convection industry are cognizant of the importance of aligning their raw materials with the designs and models they aim to produce. As for the production of uniforms, on average, they always use the same raw materials, so the planning of raw materials is rarely repeated. As Sulaiman (2015) notes, effective raw material planning can help minimize costs and maximize profits for the company.

When it comes to purchasing raw materials for stock, 44% of respondents reported that they only occasionally buy materials for stock needs, and 7% stated that they do not buy materials for stock needs. the convection business that produces uniforms always provides the stocks of materials, because the business continues to produce products continuously for warehouse needs. In the convection business that produces women's clothing, children's clothing, and so on, some businesses in the convection industry may only purchase raw materials for stock when necessary, and adjust their purchasing habits based on the trends in the market.

In terms of recording inventory lists of raw material stocks, 73% of respondents reported that they rarely record these lists, while only 4% stated that they always record inventory lists for raw material stocks. This indicates that many businesses in the convection industry may not prioritize keeping detailed records of their raw material stocks. However, as Handoko (cited in Sulaiman, 2015) notes, maintaining accurate inventory records can help ensure that subscription requests can be met without relying on suppliers, and can also aid in savings and anticipation of seasonal demand.

The use of raw materials in the convection business in Nagari Batu Taba varies. 34% of respondents always choose to use raw materials based on market trends, 22% of respondents use raw materials based on materials commonly used in the production process, and 44% of respondents rarely use raw materials that are trending on the market or are commonly used. Convection businesses that produce women's clothing, children's clothing and so on, often choose materials that are in accordance with market trends. Whereas convection businesses that produce uniforms often use the same materials, but there are times when they produce other products, such as on Eid day, most of the convection businesses in Batu Taba will focus on producing Eid clothes, so the use of raw materials is very diverse.

As for the source of raw materials, 58% of respondents buy raw materials at the local market, namely the Aur Kuning market, 4% of respondents buy raw materials at the national market, and 38% of respondents sometimes buy raw materials at the local market or national market. Most of the confectionery entrepreneurs in Batu Taba prefer the local market to the national market, because the Aur Kuning market, provides prices that are not much different from the national market price and saves more on transportation costs because the distance is not too far. However, several businesses that have private transportation and large business scale, usually buy directly from the national market.

It can be summarized that the raw material planning in the convection business in Nagari Batu Taba is quite good, with 55% of respondents having done good raw material planning, but there were 45% of respondents who did not good material planning. Planning raw materials is crucial since, according to Sulaiman (2015), a company plans and controls raw materials basically to minimize costs and maximize company profits.

Production Process

TABLE 6 shows the results of data analysis regarding the implementation of the production process in the convection business in Nagari Batu Taba.

TABLE 6. Production process analysis

No	Statement	Alternative Answer							
		Always		Often		Rarely		Never	
		F	%	F	%	F	%	F	%
1	Planning for product design	22	40	32	58	0	0	1	2
2	Product pattern making	31	56	19	35	5	9	0	0
3	Using industrial scissors to cut materials	39	71	16	29	0	0	0	0
4	Unrolling materials with a specialized machine	3	5	2	4	6	11	44	80
5	Planning the layout of pattern	37	67	17	31	1	2	0	0
6	Pre-sewing preparation	18	33	37	67	0	0	0	0
7	Manufacturing the product in production facility	3	5	6	11	9	16	37	67
8	The owner's involvement in the sewing process	35	64	7	13	7	13	6	11
9	Providing instructions for the pre-sewing procedure	7	13	46	84	2	4	0	0
10	Targetting a specific quantity of products	13	24	22	40	17	31	3	5
Total		208		204		47		91	
Average		21		20		5		9	
Average (%)		38		36		9		16	

In regards to product design planning, 58% of respondents reported that they often plan for each product to be manufactured, while 2% never plan for the design of their products. The design planning process can vary depending on the type of product being produced. For instance, if a business is producing the same product, there may be no need for further design planning. However, if a business is producing products of different models, it must re-plan accordingly.

When it comes to pattern making, 56% of respondents stated that the business owner is responsible for creating the patterns for their products. 9% of the respondents reported that it is rare for the business owner to create patterns. In the convection industry in Batu Taba, it is typical for business owners to create patterns as they often have experience in this area. However, in situations where the business owner lacks expertise, they may hire professionals or replicate existing patterns.

Concerning cutting tools, 71% of respondents reported that they use specialized industrial scissors. Additionally, 29% of respondents also reported that they regularly use these types of scissors. The research indicates that most convection businesses in Batu Taba utilize industrial scissors as they are more efficient and effective than manual scissors.

Regarding the process of unrolling materials, the majority of respondents (80%) reported that they do not use specialized machines to unroll materials. Only a small percentage of respondents (4%) reported using such machines. The use of specialized machines for unrolling materials is not widely used in the convection industry in Batu Taba. Instead, most businesses unroll materials on designated floors or tables that have been measured accordingly.

With regards to the layout of pattern components, 67% of respondents reported that they always plan the layout in advance, with only 2% stating that they rarely plan in advance. These findings indicate that before rolling out materials, the business owner will conduct a trial run of the pattern component layout, based on the predetermined fabric length. Once the trial is completed, the materials will be laid out and the components will be arranged according to the pre-established plan.

In terms of the preparation for the sewing process, 33% of respondents reported that they always prepare beforehand, with 67% stating that they often prepare beforehand. These results suggest that business owners will gather the necessary tools, materials, and product components, and deliver them to the workers' homes. They will then provide instructions on the sewing process.

Regarding the location of production, 67% of respondents reported that they do not carry out the production process in a production house, with only 5% stating that they do. The research suggests that due to the current work-from-home system implemented during the pandemic, most of the production process is carried out at the workers' homes, with production houses only being utilized for cutting materials, pattern making, design, warehousing, and quality control processes.

In terms of the sewing process, 64% of respondents reported that they directly participate in the sewing process, while only 11% reported that they do not participate. Business owners typically participate in the sewing process, in addition to managing the market schedule and product sales schedule, and cutting materials schedule. However, businesses with daily open shops usually do not participate in sewing products.

Meanwhile, 84% of respondents often gave instructions according to the procedure before beginning the sewing process, while only 4% of respondents rarely gave instructions according to the procedure before beginning the sewing process. The business owner will explain the steps that the workforce must take before beginning the sewing process. Some business owners, however, explain this to one employee and instruct him to give directions to other employees. Business owners rarely instruct their employees to manufacture the same product because they already understand the process.

40% of respondents often target the number of products to be produced per time unit, while only 5% do not target the amount of production. Most convection businesses that produce Islamic long dress will target the amount of production based on the level of sales and clothing models that sell well at a given time. Furthermore, because school uniforms are always produced continuously for stock needs, convection businesses that produce uniforms often do not target production quantities.

According to the design idea indicator, 9% of respondents made products based on their own ideas, 84% of respondents made product designs based on market trends, and 7% of respondents made products based solely on customer orders. According to the research findings, the majority of the product design ideas produced by the convection business in Batu Taba always follow market trends, and only a small number of convection businesses produce products with their own ideas.

According to the use of pattern sizes, 13% of respondents used standard sizes, 64% of respondents used business-determined sizes, and 23% of respondents rarely used standard and company sizes. Based on the research findings, it is clear that each convection business owner has his or her own understanding of determining the size of the product pattern so the majority of pattern sizes are determined by the company. However, some businesses use a variety of pattern sizes to determine pattern sizes based on production needs.

In terms of the sewing system, 85% of respondents used a wholesale system, while 15% used a one-size-fits-all sewing system (bundle system). This is influenced by the fact that the majority of the workforce works from home, so the majority of the convection businesses in Batu Taba employ a piecework system.

According to the study, 74% of respondents carried out the production process effectively. However, 25% of respondents, did not perform the production process well. Thus, the production process in the convection business in Nagari Batu Taba is generally considered good. Additionally, production is defined as the creation of goods and

services. Partadireja (in Duwila, 2015) describes that in the production of goods and services, the stages of production are referred to as the production function, a technical aspect rooted in economic theory.

Quality Control

TABLE 7 provides the results of data analysis regarding the quality control process in the convection business in Nagari Batu Taba.

TABLE 7. Quality control analysis

No	Statement	Alternative Answer							
		Always		Often		Rarely		Never	
		F	%	F	%	F	%	F	%
1	Supervision of production activities	17	31	33	60	4	7	1	2
2	Have a manager supervise production	3	5	13	24	19	35	18	33
3	Product inspection	37	67	17	31	1	2	0	0
4	Ironing and sorting process of products	37	67	17	31	1	2	0	0
5	Business labeling	24	44	10	19	10	19	11	20
6	Packaging products	38	69	15	27	2	4	0	0
7	Guarantees products	22	40	18	33	4	7	11	20
Total		178		123		41		41	
Average		25		18		6		6	
Average (%)		45		33		11		11	

Regarding the supervision of production activities, 60% of respondents reported that they often monitor production, while only 2% stated that they do not monitor production. The research suggests that businesses that conduct production within a dedicated facility tend to have better monitoring practices, while those that operate outside of a production house monitor less frequently but provide guidance and conduct inspections.

Additionally, 35% of respondents reported that it is rare to have a manager supervise production, with only 5% having a manager as a supervisor. This suggests that most production activities in the convection business in Batu Taba are directly overseen by the business owner. However, some businesses may require a manager to supervise and manage production activities when the owner is unavailable or when there are multiple production sites.

In terms of product inspection, 67% of respondents stated that they always check all products, and only 2% reported rarely checking products after the sewing process. This suggests that the majority of respondents conduct checking before marketing the product, which is beneficial for minimizing risks associated with errors in the sewing process. Additionally, the inspection process includes cleaning thread from the clothes and checking for the completeness of the product.

In terms of the ironing and sorting process of products, 67% of respondents reported always ironing and sorting products prior to packaging, while only 2% stated that they are rarely doing so. The ironing process can enhance the economic value of the product, particularly in terms of its appearance, before it is packaged.

Regarding business labeling, 44% of respondents reported having labels on their products, while 19% stated that they rarely have labels on their products. A label serves as an identifier for a product, representing its quality and quantity. However, some convection businesses may not have labels due to collaborations with other businesses or the use of labels provided by other businesses. Additionally, 69% of respondents reported packaging their products, while only 4% said that they rarely do so. This could be because some businesses only sell raw products to other businesses and therefore, the packaging process is carried out by other businesses.

Furthermore, 40% of respondents always provide guarantees for their products if damage occurs during production, while only 7% stated that they rarely provide guarantees. In product making, risks are inevitable, thus, several businesses provide guarantees to customers. The cause and severity of the damage are also considered when offering a guarantee.

The results of this study shows that 45% of respondents always carried out quality control effectively, while 33% did so often, resulting in 78% of respondents having performed quality control to a good standard. However, 11% of

respondents rarely carried out quality control, and 11% did not carry out quality control at all, resulting in 22% of respondents not performing quality control effectively. These results indicate that the quality control of the convection businesses in Nagari Batu Taba is generally of a high standard. As noted by Rusdin (2013), quality control aims to ensure that products meet predetermined standards at minimal cost, thereby improving business performance. Effective quality control can also help to reduce unnecessary costs (Sihadi, 2018).

CONCLUSION

Based on the results of this study, it can be inferred that the production process in Nagari Batu Taba encompasses various indicators including manpower planning, business capital planning, technology or machine planning, raw material planning, production, and quality control. There are some important information highlighted from the results of this study:

1. 47% of respondents reported that they carried out production planning effectively, with 18% stating that they always did so and 29% stating that they often did so. However, 53% of respondents reported that they did not carry out production planning properly, with 32% stating that they rarely did so and 21% stating that they never did so. Based on these percentages, it is clear that the production planning for the convection businesses in Nagari Batu Taba is generally inadequate, particularly in regard to manpower planning, business capital planning, technology or machine planning, and raw material planning
2. 74% of respondents had effectively carried out the production process, with 38% stating that they always did so and 36% stating that they often did so. However, 25% of respondents reported that they did not carry out the production process properly, with 9% stating that they rarely did so and 16% stating that they never did so. Based on these percentages, it can be inferred that the production process in the convection businesses in Nagari Batu Taba is generally good. The research results suggest that business owners typically begin the production process by creating product designs and deciding the patterns and materials to be used, as well as cutting and laying out components, preparing for sewing, and following other instructions. The patterns used are typically developed and determined by the business itself. The products most commonly produced in Batu Taba are uniforms, women's clothing, and children's clothing
3. 45% of respondents always and 33% of respondents often carried out quality control effectively, resulting in a total of 78% of respondents have implemented good quality control practices. However, there were still 11% of respondents who rarely carried out quality control and 11% of respondents who never carried out quality control properly, resulting in a total of 22% of respondents who did not implement quality control effectively. It can be inferred that the quality control of the convection businesses in Nagari Batu Taba is commendable. The research findings indicate that convection business owners place a significant emphasis on product quality as it plays a crucial role in determining customer satisfaction. The quality control process includes tasks such as checking, labeling, ironing, sorting, and packaging before the products are marketed.

The results of this study highlight that every production process in a business inherently possesses both benefits and drawbacks. Analyzing them can aid in providing appropriate solutions to mitigate the potential risks associated with running a business. This study hopes to raise awareness among entrepreneurs in Nagari Batu Taba, as well as the general public who may be interested in starting a convection business, to take into account all factors that influence the production process, there by increasing their knowledge and understanding of it. Furthermore, it is suggested that local governments provide educational resources and strategies to assist entrepreneurs in navigating the challenges of modern business management.

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