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## Optimizing the Use of Rice Mills Unit and Bed Drayer Technology Implementing Hygiene and Sanitation Standards to Improve Employee Performance Agricultural Industry

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### **Abstract**

The purpose of the research on optimizing the use of rice mills unit and bed drayer technology and the application of hygiene and sanitation standards to improve employee performance in the rice milling agricultural industry aims to determine the use of agricultural technology and the application of hygiene and sanitation standards to support employee performance in the rice milling agricultural sector. Qualitative research using a literature study approach. Books, journals, research reports, and secondary data to support the research results. The research process begins with the urgency of using technology and implementing sanitary hygiene standards in the agricultural sector that can improve employee performance. The application of hygienic sanitation standards in rice mills is still not optimal, training is needed. That to improve employee performance in a company including in the agricultural industry sector, an employee must be able to master technology properly and correctly in order to achieve the goals of a company. The conceptual framework used as a research topic shows a link in improving performance. Employees as a parameter are given increased competence related to the use of the latest agricultural technology.

**Keywords:** *Agricultural Technology; Hygiene and Sanitation; Employee Performance; Qualitative Research*

### **Introduction**

Rice is one of the strategic food commodities that has an important role for food security in Indonesia. Rice milling as the processing link of grain into rice and the supply chain of rice in the economic system of Indonesian society, is required to contribute to the national rice supply both in terms of quantity and quality. Therefore, the rice milling business needs to be developed and improved in performance, considering its role as a meeting center between production, processing, and marketing is very important and strategic. Food security is a strategic issue in accommodating the food needs of the community, the condition of the fulfillment of food for the state and individuals which is reflected in the availability of sufficient food, both in quantity and quality, safe, diverse, nutritious, equitable and affordable in the development of increasingly modern agricultural technology for rice milling in the form

of rice mills unit and bed drayer production tools that facilitate employees and speed up the rice milling process.

Technological developments also occur in rice milling machines, one of which is the increasing number of types of mobile rice mills. Mobile rice mills make it easier for farmers to grind grain. Farmers do not need to bring their grain to the rice mill so that they can save transportation costs and energy for transporting grain. Farmers can also directly supervise the process of milling their grain into rice to avoid cheating by the rice milling business. However, mobile rice mills close the access of permanent rice mills to obtain farmers' grain (BPS, 2020).

Rice mills play an important role in the national rice supply chain. Its existence is spread in areas that are centers of rice production in Indonesia. In general, it can be concluded that the greater the number of rice milling businesses in a region, the greater the contribution of the region in realizing national food security. The PIPA20 activity recorded 169,789 rice milling businesses in Indonesia. Today's modern rice milling agricultural technology Rice mills unit (RMU) is a type of rice mill that is compact and easy to operate where the process of processing grain into rice can be done in one process.

Java Island, which is the center of rice production in Indonesia, dominates the distribution of the number of rice milling industries in Indonesia, reaching 90,698 businesses. Outside Java, there are 31,700 businesses in Sumatra, 20,368 businesses in Sulawesi, 16,049 businesses in Kalimantan, 10,424 businesses in Bali and Nusa Tenggara, and 550 businesses in Maluku and Papua

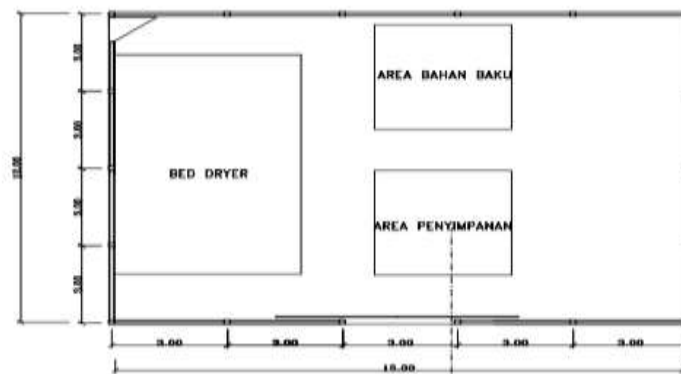


Figure 1a. Plan of Rice mills unit / RMU agricultural technology Scale 1:200  
Source: Researcher Survey, 2023

Bed Drayer / Drayer is a circulation system drying machine consisting of a drying chamber, tempering chamber, conveyor, elevator, heating source, drive motor, fan, and other supporting equipment that functions to reduce the water content to a certain water content by blowing or sucking hot air perpendicular to the direction of circulation of the material to be dried.

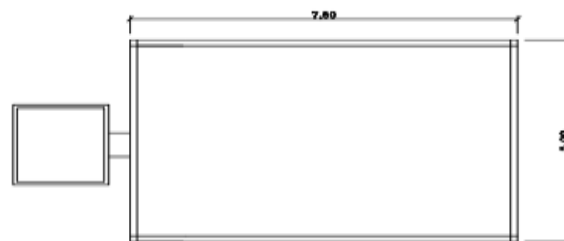


Figure 1b. Plan of Bed Drayer agricultural technology Scale 1:200  
Source: Researcher Survey, 2023

The scale of the rice milling business is determined based on the installed production capacity or the condition of the ability of the rice milling machine used by the business/company (BPS, 2020). Of the 169,789 rice milling businesses in Indonesia in 2020, 161,401 businesses or around 95.06 per cent were small-scale rice mills, i.e. businesses capable of producing less than 1.5 tons of rice per hour. Only 7,332 businesses or around 4.32 percent are medium-scale rice milling businesses, which generally have machines with large capacity, integrated and modern. The rice milling agricultural industry in Indonesia varies from small scale, and medium scale, the number of workers in the rice milling unit is limited according to the standard machine capacity of rice mills unit / RMU production equipment 0.5 tons / hour with components of the function of breaking the skin (PK) and polisher, and Bed Drayer minimum capacity of 3.5 tons per process. At this time the surviving rice milling factory production using rice mills unit and bed drayer and the ability and experience of the workers who understand the operational standards of the factory.

Small-scale rice milling is a unit of processing dry milled grain into rice with a maximum capacity of 1,500 kg of dry milled grain/hour, while medium-scale rice milling is a unit of processing dry milled grain into rice with a capacity of 1,500-3,000 kg of dry milled grain/hour. Grain is rice grains that have been separated from the stalk and are still skinned while rice is rice that has been peeled off the skin, dry grain harvest (GKP) rice grains that have been separated from the stalk and are still skinned obtained at harvest time, while dry grain milled (GKG) rice grains that have been separated from the stalk and are still skinned in dry conditions and ready to be milled.

Table 1c. Production processors of agricultural machinery units

<i>Rice mills unit/</i> RMU technical specifications		<i>Bed drayer</i> grain technical specifications	
Input capacity	1148.71 kg	Input capacity	10 ton/process
Husker	1 unit	Indirect heating	Husk fuel
Separator	1 unit	Water content	13,8%
Polisher	2 unit	Variability of moisture content	0,83%
Elevator	4 unit	Increase in damaged seeds	0,46%
Husker drive motor	Kubota 15 HP	Drying rate	1,35 %/ hours
Polisher drive motor	Yanmar 30 HP	Drying heat efficiency	65,15%
Completeness	Rice grade 1 unit		

Source: (Febrian, 2015)

Rice mill employees include farmer group labor, hereinafter referred to as poktan, which is a group of farmers formed on the basis of common interests; similarity of social, economic, and environmental conditions, resources, commodity similarities and familiarity to improve and develop member businesses. Farmer Group Association hereinafter referred to as gapoktan is a collection of several farmer groups that join and work together to increase economies of scale and business efficiency.

Equipment availability in rice milling is divided into two, namely main equipment and supporting equipment. The main equipment is the equipment used to process rice milling from skin breaking to packaging such as skin breaking machines, drying machines and packaging machines. Supporting equipment is equipment used to support the process of milling, drying, storing rice such as diesel engines, trolleys, and fumigation. The production process commonly found in rice mills can be divided into two types. The types of milling production processes are with mist polishing and without mist polishing. Flowcharts of both production processes are presented. The production process aims to make the rice shinier and cleaner so that it has a more attractive visual appearance for consumers,

In general, rice mill employees must understand agricultural technology and the application of sanitary hygiene, starting from how to process small-scale rice milling, and medium-scale according to the needs of rice milling equipment to the cleanliness of personnel and the company environment, then recording the receipt of grain and rice sales must be balanced with the importance of recording the implementation of cleaning and maintenance, monitoring grain and rice quality parameters, machine/equipment performance, and keeping records of rice milling neatly arranged.

Hygiene is a term from the English language, namely "hygiene" which means preventive health efforts that focus on individual health efforts, as well as human personal health efforts. While "sanitation" which means preventive health efforts that focus on human environmental health efforts. So Hygiene and sanitation are health efforts by maintaining individual and environmental hygiene. The main goal of implementing hygiene and sanitation aspects in companies is to create a healthy and productive workforce. Meanwhile, for the production area, it creates a clean, hygienic work environment that does not contaminate the products produced. (Lesmana, 2015).

The scope of Hygiene is divided into two, namely personal hygiene or personal hygiene is an effort to maintain the cleanliness and health of a person for physical and psychological well-being. Food Hygiene is an effort to maintain and maintain the cleanliness of food and beverages consumed by humans. The scope of sanitation is the provision of clean water, waste management, food and beverage processing, supervision or control of insects and rodents (Lesmana, 2015).

The concept of Hygiene implementation in rice milling company premises is as follows:



Hygiene is an effort to maintain and protect the cleanliness of personnel as follows Washing hands to maintain and protect hand hygiene, washing cutlery to maintain and protect the cleanliness of cutlery, storing food in a special place to maintain and protect cleanliness, during work smoking is prohibited to prevent food contamination by smoke, ash, and cigarette butts, washing hands after going to the toilet to maintain and protect hand hygiene. Meanwhile, sanitation of health efforts by providing facilities / facilities to maintain and protect environmental hygiene for personnel and products. Cleaning and handling of production equipment in modern rice milling companies, the main principle of equipment must be easy to open or move to facilitate cleaning with non-corrosive materials, the design, type, size and installation of equipment are made to avoid and prevent contamination during the production process, the selection of RMU and Bed drayer machines to facilitate hygienic and sanitary cleaning, good care and handling are needed to understand the destructive nature of contamination and realize the benefits of

preventing contamination. (South East Asia Food & Agricultural Science and Technology Center Lembaga Penelitian dan Pengabdian kepada Masyarakat IPB, 2022)

The condition of rice mills for the production of circulating rice varies, it is determined that the location of rice milling facilities is located in a clean environment, away from public waste disposal sites, waste or slums. The rice milling facility is not located in an area that is easily flooded. The building area in general is made of strong, sturdy, and easy to clean materials, the floor is designed in such a way as to avoid waterlogging, the grain drying area is equipped with a drying floor in the form of a ceramic floor, fine cement, or a rough floor covered with tarpaulin, the area for receiving harvested dry grain, storing milled dry grain, rice and by-products must be dry, well ventilated, and separated (separate rooms or the same room but by using a partition), the rice production area can be distinguished for the location of each operating machine and has good ventilation. Equipment and machinery are made of durable and easy-to-clean materials that facilitate cleaning, maintenance, and monitoring. Ventilation facilities are equipped with guards that prevent pests/animal intrusion, sanitary facilities for toilets and hand washing stations are available and well maintained. Production facilities are equipped with sufficient lighting that can distinguish physical contamination/foreign objects of gravel, wood pieces, metal chips from food ingredients, chaff, bran waste disposal facilities are designed and maintained, there are space facilities.

Controlling the process of receiving harvested dry grain that comes to be checked for identity/source, recorded, documented and proof of recording is stored, milled dry grain is weighed using scales that are still functioning and have been calibrated at least once a year. Drying of harvested dry grain using a vertical dryer or horizontal dryer / bed drayer that can avoid pests. Storage of milled dry grain is stored by putting it in clean sacks and not using used sacks. The storage arrangement principle in the GKG storage area follows FIFO (first in first out). The breaking of husks, sieving/separation of husks, shredding of by-products in the form of bran and husks are placed in a separate area from the main milling process to prevent mixing with the rice. Rice packaging is done using clean containers, free of contamination from dirt, foreign objects, metal flakes, plastic, glass. Rice packaging is made from new, clean, undamaged and food-specific materials. Labeling of rice packaging is clearly labeled. Storage of rice products is kept in a separate area from hazardous chemicals.

Maintenance and sanitation prevention of insects and nuisance animals can be done using traps, another effective way to prevent contamination of rice products in storage areas, building areas and machine tools are cleaned on a scheduled basis at least once a week as needed. Hygiene employees maintain personal hygiene of all parts of the body from hair to feet of the clothes worn. Observation of employee personal hygiene can be seen from the cleanliness of hair, nails, and clean skin. Employees who are in the production area do not do habits that can contaminate food. Training needs to be held regarding the application of hygiene and sanitation for rice mill employees, training needs to be held on how to produce good rice for rice mill managers. Required recording of GKP or GKG grain receipts, required recording of rice sales, required checklist for monitoring the cleaning of rice milling facilities. (South East Asia Food & Agricultural Science and Technology Center Lembaga Penelitian dan Pengabdian kepada Masyarakat IPB, 2022).

The purpose of the research on optimizing the use of rice mills unit and bed drayer technology and the application of hygiene and sanitation standards to improve employee performance in the rice milling agricultural industry aims to determine the use of agricultural technology and the application of hygiene and sanitation standards to support employee performance in the rice milling agricultural sector. Employee performance is how a group of individuals who can control their time and are able to use their work techniques to achieve the company's common goals effectively and efficiently. The agricultural sector can continue to develop with the existence of increasingly modern agricultural machinery technology and the application of hygienic sanitation to all company employee personnel to be able to follow the development of forms of agricultural technology in supporting these daily activities. This research will conceptually explain the optimal use of agricultural technology on employee performance.

Mastery of technology becomes very urgent in the agricultural sector because companies engaged in the rice milling sector are very numerous and varied. The application of hygienic sanitation standards in rice milling is still not optimal, there is a need for training in each rice milling unit. This is a challenge for the development of future business ventures. The contribution and productivity of employees working in the agricultural industry is highly dependent on the use of technology.

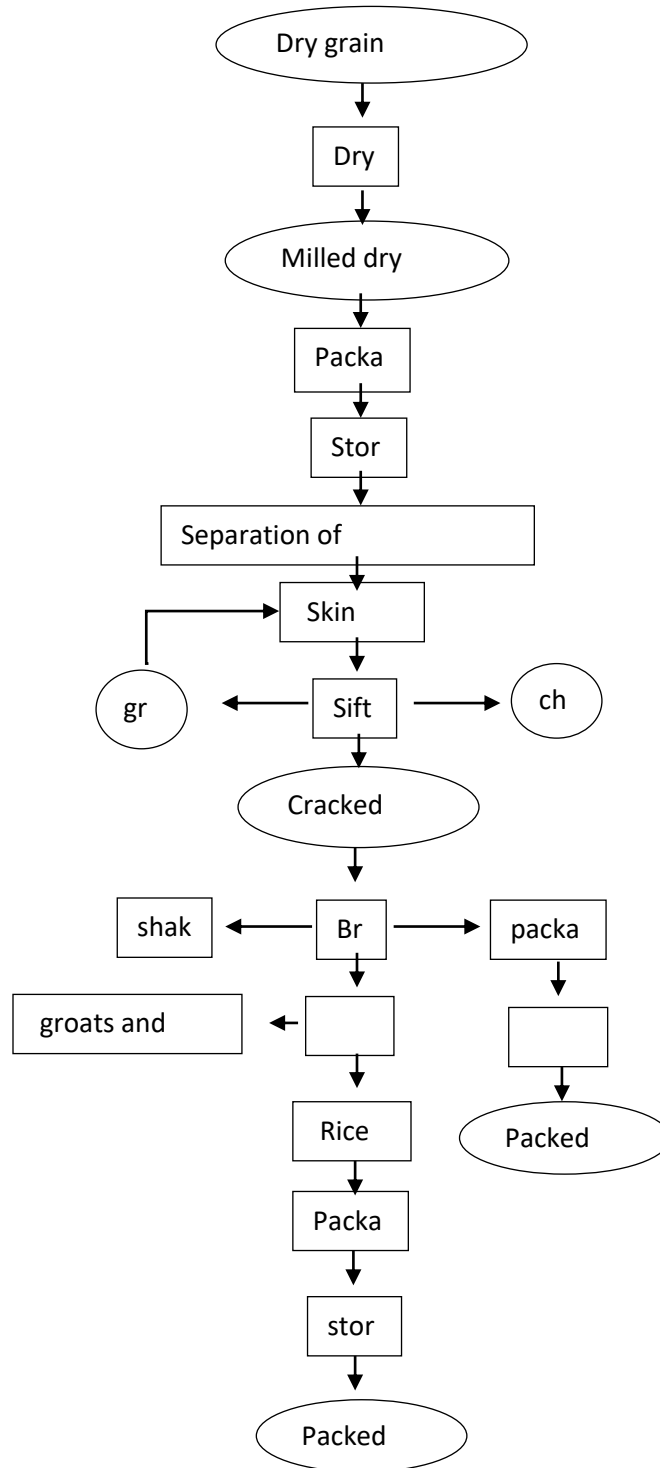


Figure 3a. Concept flow diagram of the fog-polished rice milling process

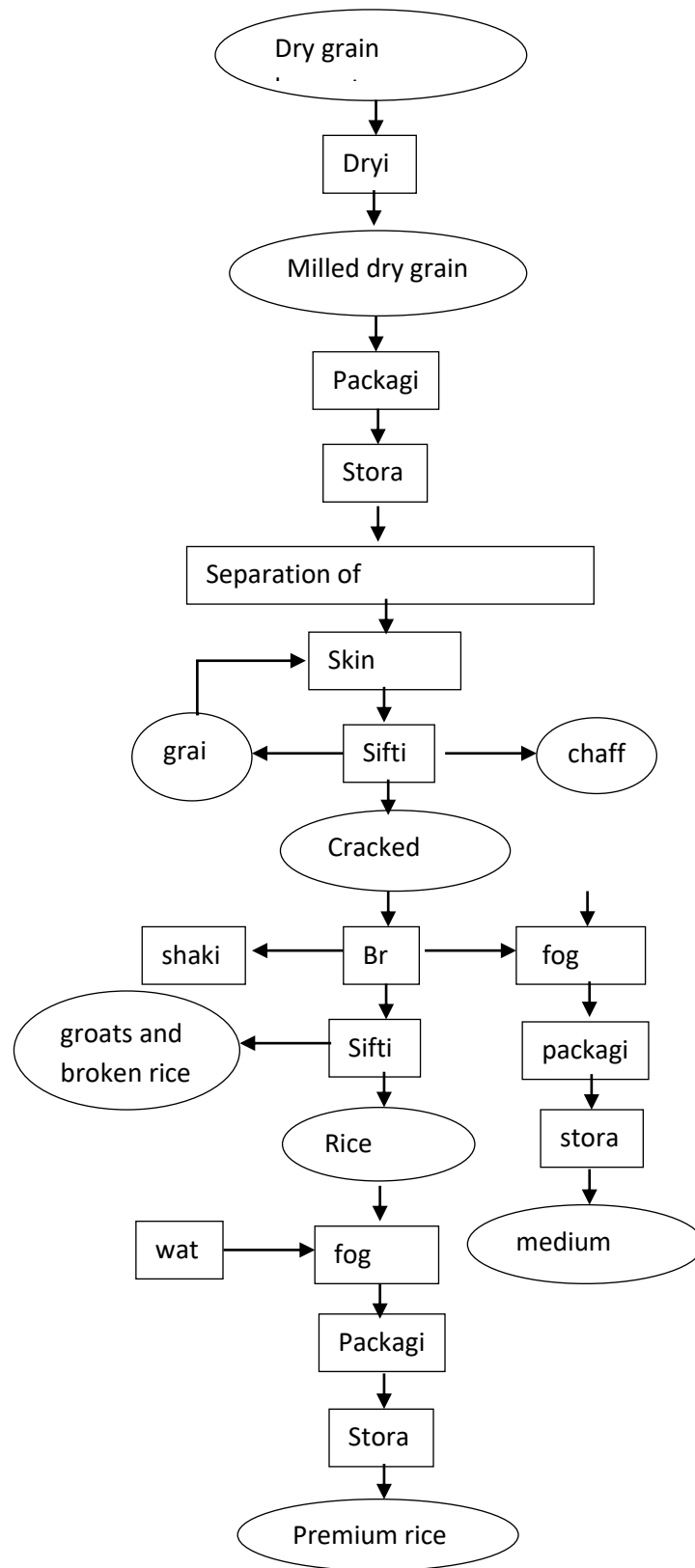


Figure 3b. Flowchart of rice milling process with mist polishing



## ***Theoretical Review***

### **Performance**

Based on the Big Indonesian Dictionary (KBBI), performance is something to be achieved, achievements displayed and work ability. According to Farida (2014), The origin of the word performance is from job performance or actual performance which means someone who has achieved real achievements at work or can be said to be work performance. Company management uses performance to conduct periodic assessments of the operational effectiveness of the organization and its employees against predetermined goals, standards and criteria. Through this, the company can find out the achievements of its employees, whether they succeed or fail in carrying out the assigned tasks. Performance itself is influenced by several factors such as the balance of an effective work environment and includes people, resources, work clarity, and feedback. Performance is the recording of the results obtained from the function of a job or activity during a certain period of time (Bernardian & Russel, 1993). Performance is the result of work achieved by employees in their work according to the criteria that apply to a task. (Robbins & Judge, 2008). Performance is a work achievement including the comparison between work results and work standards set (Dessler, 2015).

Based on the definition of performance that has been described, it is concluded that performance is a behavior that shows the overall success of an employee's work over a certain period of time, both in quantity and quality according to his role in the company. Factors that affect Performance in a company can be influenced by various factors, ranging from internal to external. Kasmir (2016) said there are several factors that can affect performance, namely.

Ability or Expertise employees must have the ability and expertise to do the work that has been determined, in order to complete it effectively and efficiently. This means that ability and expertise will have an influence on a person's performance. Knowledge Employees with good job knowledge can provide optimal work results. This means that employees' knowledge of their work can have an influence on performance. Work Design A job if it has a design, it will make it easier to carry it out in order to achieve goals. A good work design or vice versa can affect employee performance. Personality Every individual has a different and unique character or personality. A good personality will carry out job duties seriously and with great responsibility, of course, will have more productive work results. Work Motivation In doing their job, every employee needs to have motivation from themselves or encouragement from outside. High motivation can stimulate or grow a person to produce high performance for the organization. Leadership is the behavior or attitude of a leader to organize, control, give work orders and responsibilities to his subordinates. Organizational Culture Are norms and habits that apply and are owned by the company. These norms and habits regulate the provisions that apply and must be obeyed by every element of the company. Job Satisfaction Is the feeling of an employee such as happy, like, happy to his job. If this feeling occurs, the work results will be good. Work Environment Is a situation in the workplace such as work space, facilities and infrastructure and working relationships with other employees. Commitment Is the order or compliance of each employee in carrying out established company regulations. Loyalty Is the loyalty of an employee who continues to work seriously even though the condition of the company is not good. Work Discipline In carrying out his work activities, an employee must do it in an orderly manner, such as not being late for work. Another thing is the discipline to do the tasks assigned to him in accordance with the superior's orders. Employees with high discipline will be able to affect their performance.

### **Performance Dimensions**

In measuring employee performance appraisal, several indicators are used, Bernardian & Russel (1993) assumes six indicators as follows, Quality is a process of an employee's work in order to complete the ideal work. Quantity is how much work or work completed by an employee on a job. Timeliness It is

related to how quickly a person completes work on time that has been determined by the organization. Cost Effectiveness A level of utilization of company elements such as people, finances, technology, and materials that can be maximized for the highest profit and reduce possible losses due to resource use. Need for Supervision The extent to which a person can carry out their work and responsibilities for a job without having to use supervision from the company. Interpersonal Impact The level of an employee who is able to promote himself, as well as teamwork or good cooperation between coworkers and subordinates.

Meanwhile, according to Gomes (2006) There are eight dimensions that must be considered in conducting research on performance, as follows, Quality of Work quality is the result of work achieved according to the requirements of order and readiness. Quantity of Work quantity is the number of tasks performed in a certain and predetermined period. Job Knowledge Working knowledge is someone who has intelligence and skills related to the work performed. Creativity is the originality of ideas displayed and actions in finding solutions to problems faced. Cooperation Willingness to cooperate with fellow employees and superiors. Dependability The understanding of being trustworthy is related to work order and work completion. Initiative Have the initiative to work and enthusiasm in doing work. Personal Qualities Relating to an action that upholds the interests of work over those of one's own. Based on the explanation above, this study will use the performance dimensions of the Gomes (2006) which are used as performance variables include: Work quality, work quantity, work knowledge, creativity, cooperation, reliability, initiative, and personal quality.

## Performance

Learning from Deloitte's organizational experience on management processes by implementing new performance can improve its performance management system. Working in teams can create a performance management process by setting three key organizational goals (Dessler, 2018)). The team should recognize employee performance especially in terms of bonuses. The new performance process clearly reflects the employee's performance.

The new process should energize the performance by monitoring the employee's performance so as to improve his/her performance during assignment. Performance management is an ongoing process of identifying, measuring, and developing individual and team performance to link that performance to organizational goals, (Dessler, 2018) There are six fundamentals of performance management as follows, Direction sharing is communicating organizational goals to all employees and translating into organizational, team and individual goals. Goal alignment is having a method that allows managers and employees to see the relationship between the employee's goals and the organization. Ongoing performance monitoring is continuous, meaning that the computer technology system measures the progress of teams and/or employees continuously in achieving performance goals. Ongoing feedback is to provide continuous face-to-face and computer technology-connected feedback on progress towards goals. Coaching and development support should be part of the feedback process. Recognition and rewards should provide incentives to keep employee performance directed toward organizational goals.

Performance appraisal is evaluating employee performance that is being done and that has been done in accordance with predetermined performance standards. Performance appraisal involves a performance process with three stages, including first setting work standards, second assessing real performance on employees who meet work standards, third providing feedback to employees with the aim of improving their performance. (Dessler, 2018). Job appraisal is a method of comparing various jobs using formal and systematic procedures to determine the order of jobs through determining the position and ratio between one job and another. The result of this assessment is referred to as performance, which can be used as a basis for providing a fair wage system. (Sinambela, 2016)).

Based on research, influenced performance includes, Time management skills. Time management skills can balance life and stress levels. When employees are not able to manage their time well, their time will not be effective and they tend to have high stress levels. Conversely, employees who are able to manage their time well will perform well, and have low stress levels. So, good time management is the key to success and perfection in carrying out work. Therefore, individuals need practice and habits in managing time, so that their performance can improve. Manager behavior in controlling working time. A manager must be able to control and control the time that employees have, because it will greatly affect: performance, workers' lives, and employees' occupational health. ( (Shadare, 2009)).

Performance indicators are closely related to performance appraisal. Performance indicators are the starting point of the performance appraisal process, by looking at the results of performance achievements against key performance indicators. Hersey, Blacnhard and Johnson (Wibowo, 2016) There are seven performance indicators, namely, Goal is a distinct state that an individual or organization actively seeks to achieve. Standards are important because they tell when a goal can be accomplished. Feedback between goals, standards, and feedback are interrelated. Feedback reports progress, both quality and quantity, in achieving the goal defined by the standard. Tools or means are cooperative resources that can be used to help complete objectives successfully. Competence is the main requirement in performance, competence is the ability possessed by a person to carry out the work given to him well. Motive is the reason or impetus for someone to do something. Opportunities workers need to get the opportunity to show their work performance. There are two factors that contribute to the lack of opportunities for achievement, namely the availability of time and the ability to fulfill the requirements.

## Use of Technology

The use of technology is currently very important in all types of organizations or companies in Indonesia, of course, already using the latest technology and of course all employees must be able to apply this technology. This is also directly proportional to the existing theory about technology mastery (Parry, 2019). Information technology is the study or electronic equipment, particularly computers, to store, analyze and distribute any information, including words, numbers and images (Pankowska, 2019). Technological advancements have a major impact on almost every aspect of human life and the progress of society. This leads to a better quality of life and a higher level of human intelligence. Accelerated technological advancement is taking place in the interest of all societies (Jiang, 2018).

Technological advances have long been a driver of organizational change, including human resource development. (Li, 2016). This process will be characterized by passing from one generation to the next. Companies will strive to improve their competitive position with the application of more advanced and efficient technology (Wang I. K., 2017). The process of mastering technology requires the support of top management, parent institutions, owners of capital and interests, connectivity, maintenance and maintenance, human resources, other infrastructure such as electricity, space/building, furniture, interior design, computer networks, etc. and office users such as needs, comfort, user education, user conditions, and others. Things that employees need to know in utilizing technology, namely, Understand the purpose, scope and elements of administration. Understand and be able to appreciate the benefits of system analysis and design, implementation, evaluation, and maintenance. Understand the software evaluation process according to the previous proposal determining a system. Understand and be able to appreciate the importance of training for employees and employee involvement in the overall work process.

Mastery of technology can comprehensively increase employee productivity (Majid & Aleissae, 2020); (Shahdadi & Ghavam, 2017). Technology can make the work process simpler and faster. The rapid development of technology is able to increase production speed in terms of manufacturing. Robotic applications and technology are becoming the current trend so that the work process becomes more practical (Shishehgar & Blake, 2018) (Wang & Wang, 2021). Employees as the frontline must be

prepared for the optimization of technology on company performance. Business organizations will become more responsive to rapid business changes. Therefore, technology plays an important role in improving company and employee performance.

Information technology is a type of technology in the form of technical equipment and serves to process and convey information (Dillon & Morris, 1996). Information technology includes a series of equipment that functions as a tool for processing data or information, tools, manipulation tools and information management tools according to organizational needs. Technology in this era of globalization is experiencing very rapid development. development, this is marked by increasingly sophisticated technological equipment and an increasingly wide range. With the advancement of information technology, activities carried out by humans can be completed effectively and efficiently and get maximum results.

### **Hygiene Dan Sanitasi**

The application of sanitary hygiene standards is very important for the sustainability of the agricultural industry in maintaining the cleanliness of the environment of employee personnel who work. Sanitation is an effort that oversees several environmental factors that affect humans, especially against things that affect the effects, damage physical development, health, and survival or efforts to maintain the maintenance of food, workplace or free of pollution caused by bacteria, insects, or other animals. (Hermawan, 2016). The purpose of sanitation is to create or maintain conditions that are able to prevent food contamination or the occurrence of diseases caused by food and concrete efforts in realizing hygienic conditions (Widyati, 2002).

### **Research Methods**

This research uses a literature study approach. Books, journals, research reports, and secondary data to support the research results. The research process starts from the urgency of using technology and implementing sanitary hygiene standards in the agricultural sector that can improve employee performance. Technology has become a hot issue in the agricultural sector because companies engaged in the rice milling sector are numerous and varied. The application of hygienic sanitation standards in rice mills is still not optimal, training is needed. Agricultural industry companies as the main business entity must build awareness of the urgency embedded in all employees. Technology and the application of hygienic sanitation are the main components to achieve business targets.

The literature study method is a process of using theories, concepts, and results obtained needed in accordance with the research problem. (Sekaran, 2016). The analysis is presented in a narrative manner and compared with the journal as the primary source. The urgency of this topic is built on the basis of how the agricultural industry is in dire need of employees who master the latest technology and hygienic application of sanitation. Work process and contribution are the main habits that shape employees into professionals

### **Result and Discussions**

This study uses a conceptual basis for thinking to reveal the implications of the use of agricultural technology and the application of hygiene and sanitation standards on employee performance. Below is a picture of the conceptual framework model as follows:

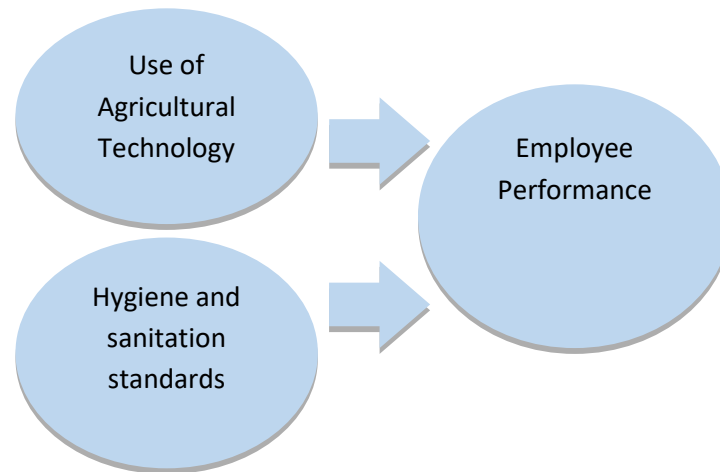


Figure 4. Conceptual thinking

Based on the theoretical description and framework above, to improve the performance of an employee, several supporting indicators are needed, namely Performance, where performance is the result of work achieved by an employee in completing the tasks assigned to him. The employee will do it with full skill, experience that the employee has previously had and seriousness in completing the work. In addition, performance improvement can also be seen from the responsibility factor. In this factor we can see the ability of an employee to complete work as well as possible and on time, and dare to accept the risks of the decisions he has made. Not only these 2 indicators can be used as benchmarks to be able to see the performance of an employee. then the cooperation factor also affects the self-improvement of employees where cooperation will show how an employee is able to cooperate with others in completing tasks so as to achieve results and have optimal common goals. In addition, the three factors above will be more perfect if added to the discipline factor. Where in this factor we can see an employee in obeying a rule in doing a job with optimal goals and work results.

To improve employee performance, of course, not only the 4 indicators above can be used as benchmarks for utilizing technology while other things in improving employee performance, there are 5 indicators that are used as benchmarks in implementing sanitary hygiene standards that play a role in improving the performance of an employee in a rice milling company. However, mastery of agricultural technology is also very important in the role of improving the performance of an employee in a rice milling company. Basically, the agricultural sector is based on high technology where all activities must be supported by technology that continues to move and develop in it. Changes in agricultural technology from the old generation to the current generation certainly affect the work performance of a rice milling company. In this case, all employees within the company must be able to run it. Then from the side of the rice milling company, of course, the company must be able to convince and must also be able to support all its employees in order to master all forms of technological changes in it. In addition, the company must also think about how to develop all of its employees to be able to master every form of technological change that exists in it so that these employees can continue to improve their performance in all fields including good mastery of technology.

Along with the development of business dynamics and information technology, stakeholders from both the government and the private sector began to see information technology not only as a tool that responds to business policies and strategies but also as a source of organizational competitive advantage. Therefore, the alignment between business and information technology must be placed proportionally in accordance with Organizations that still rely on electronic business processes actually use information technology as the main system that designs, analyzes develops, and runs their business model. Dramatic changes in the use of information technology, businesses make it a strategic information system that can encourage creating competitive advantage in each of its uses.



Employee performance is the result of work or work (output) both in quality and quantity achieved by an employee in carrying out his duties in accordance with the responsibilities given to him (Dessler G., 2017). Individual performance aims as a tool that aligns individual work expectations with organizational goals. The compatibility between efforts to achieve individual goals and organizational goals will be able to realize good performance. The use of technology in a business organization must be supported by the readiness of employees. The socialization process by preparing how the use of technology will have an impact on employee performance. Sophisticated technological equipment will facilitate the achievement of performance and work results according to targeted business targets. Operations and services become easier and more optimal. Employees are able to achieve maximum performance and customer satisfaction with the quality of products produced by the company through technology optimization.

Some studies show that the application of technology affects employee performance (Nuskiya, 2018) (Yuvaraj & Nadheya, 2018). Companies as business organizations must respond to rapid technological changes. This will change the order of business processes according to market needs. Business processes can become faster, more efficient, and cheaper. faster, more efficient, and cheaper so that it becomes a long-term investment. Optimize productivity for the better through mastery of technology. The process of attendance, performance measurement, production, manufacturing, and product quality detection can be facilitated through technology. The use of technology is becoming increasingly urgent that must be done by companies as business entities.

### **Technology Implications on Employee Performance**

Technology that is developing very rapidly is able to change the process of human life. Technological developments in the business world and the market must be able to balance with consumer demands. The human resource perspective sees technology as a major investment that must be paid for with performance and productivity (Choi & Choe, 2016); (Novotná, Volek, Rost, & Vrchota, 2021). The rice milling industry provides quality rice that meets hygienic sanitation standards with the use of high-speed technology. Therefore, mastery of technology should be one of the main in employee competencies. Some technology acceleration strategies that can be carried out by companies are as follows:

Rapid adaptation, Fast responsiveness, Precise service with the best product quality.

The use of technology must make business processes more effective. That mastery of technology will be a challenge for the company. The implication is how the achievement of performance must be anticipated with fast adaptation, fast responsiveness and fast service at high speed. Employees must have the speed of adaptation to changes in business processes. Technology will make the work process more practical. Employees must be given direction, training, and coordination to operate technology optimally. The implications of this adaptation provide faster and more effective business operations.

Employees must be highly responsive to mastering technology. Responsiveness means employees must learn quickly to master technology. Today's Agricultural Industry relies heavily on technology as a business operation. Employees have high flexibility in mastering agricultural technology. Very rapid business changes must be responded to by the organization and preparation of human resources. The quality of products provided to the public is of a standardized quality of hygienic sanitation implementation. The community as a consumer object must be served with good product quality. Mastery of technology must provide solutions to the problems faced by the company. Employees must make a maximum contribution to the company. Technology is a solution provided by the company to provide services with the best product quality.

The existence of a business exists because it is a necessity for society. The Agricultural Industry is one of the alternatives to meet the needs of food security that is safe for consumers. Mastery of

technology provides new alternatives in achieving business industry targets. All can be achieved in the form of employee performance as the executor of mastery of technology. The existence of technology must provide solutions and a new atmosphere that is effective for business processes. Achieving employee performance will be the focus of the company through the renewal of agricultural technology. Employee training and development programs must be provided in accordance with technological updates. Employees can master technology professionally and competently. Technology as an investment can help business quality become more effective and efficient. Therefore, the use of agricultural technology must be prepared to improve the quality performance performed by employees.

### **Implications of Implementing Sanitation Hygiene Standards on Employee Performance**

Average achievement of conformity of rice milling conditions with hygienic sanitation standard statements per province. The provinces of West Java and East Java have the highest presentation of 70%, while the province of South Sumatra has the lowest percentage of 59%. Overall, it has been found that 65% of hygienic sanitation requirements are met and have been implemented in the milling locations. The categories of standards that are mostly fulfilled by rice milling facilities are location and process control, which are 91% and 80%. Location has the highest achievement because rice mills are generally in areas near rice fields that are far from landfills or factory environments. In addition, process control has a high level of achievement because this process control will greatly affect consumer acceptance. Buildings, equipment and facilities 68% of rice mills that meet the standards of agricultural technology facilities and 67% sanitation maintenance that maintain the cleanliness of the production process until packaging. Employee hygiene 64% of personnel hygiene seen from nails must be neat and clean. In addition, business actors need to be able to meet consumer expectations to get the best quality rice. The categories that are difficult to fulfill by rice milling facilities are record-keeping related to the maintenance and cleaning of machine tools and the provision of training. Milling facilities that routinely record the maintenance and cleaning of machine tools are only 35%, while rice milling facilities that conduct training for employees are 23%.

### **Conclusion and Recommendation**

11 Based on the description above, it can be concluded that to improve employee performance in a company, including in the agricultural industry sector, an employee must be able to master technology properly and correctly in order to achieve the goals of a company. The conceptual framework used as a research topic shows a link in improving performance. Employees as a parameter are given increased competence related to the use of the latest agricultural technology. The agricultural industry requires mastery of technology in accordance with the company's business needs. This model shows an effort to change to become a leading sector in the agricultural business. Human resources are the main perspective in the current business era. Companies must prioritize the use of technology where the digital era has become a trend of simplification. Agricultural industry processes are becoming faster and more efficient.

This research provides recommendations to make technology a top priority for agricultural industry businesses. This priority can be used as a change in the face of business uncertainty. Employee competency development should always be carried out in accordance with business demands. Human resources as long-term assets to prepare for new business opportunities. Every business opportunity is through the utilization of technology. Technology readiness has become a new trend that all business organizations must install. Technology does not replace human labor and roles, but as a partner in achieving good performance by the company.

The conclusion derived from this conceptual thinking is that the use of technology is needed by employee performance. The rice milling agricultural industry is in dire need of technology as a key prerequisite in the face of business uncertainty. Employees should be provided with competency

development and training in accordance with the latest technology. Companies must allocate a special budget for investment in agricultural technology and human resources. Therefore, technology is directly proportional to the achievement of maximum performance.

### **Author Contributions**

The role of the authors has been divided into several tasks. The first author designed the research along with the formulation of the conceptual model. The second author developed the research model by comparison with journals to see the conceptual implications on employee performance. Cooperation between the first author and the second author in describing each paragraph and paragraph containing conceptual thinking ideas.

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