Team Based Gainsharing Program Implementation In A Polycarbonate Lens Factory Indonesia

Milind Gadre  
Hoya Vision Care c/o  
School of Business Management  
Institute Technology Bandung  
Jakarta,12950, Indonesia  
milindgadre1962@gmail.com

Michelle Yit  
School of Business Management  
Institute Technology Bandung  
Jakarta,12950, Indonesia  
michelle.yit@gmail.com

Abstract

Manufacturing factories often use gainsharing (collective performance rewards to incentivize their employees) as a tool to improve performance measures and goals. In this study, a team-based gainsharing program was adopted by a polycarbonate lens manufacturing company to meet its objective of increasing productivity and improving profitability in Indonesia. To test the effectiveness of a gainsharing program in improving Key Performance Indicators (KPI), a quantitative method is used for collecting and trending KPI results against gainsharing payouts. The KPI and calculation of gainsharing payout was set by the factory management. Data from the factory was collected and tabled on a monthly basis for a period of six (6) years. The early stages of the study were met with challenges and the initial outcome was not receptive. The criteria and incentives in the program were then re-evaluated and revised with total buy-in and active participation from the management. Empowerment and team-based training, outbound team outings, conflict resolution workshops with internal and external stakeholders were conducted. The hypothesis was proven correct where gainsharing did have a positive impact on meeting KPIs. In meeting the improved KPIs, the gainshare amount from the program was paid out. The findings support earlier studies. The changes made, in the context of a collectivist society, were the percentage payouts which were different for departments were merged into one single payout for all. This study confirmed when there is a good alignment between gainsharing and performance measures put in place, the gainsharing program could succeed. The collectivist element consideration, clear communication, stakeholders’ involvement, and the factory management willingness to do some tweaking and revision to the gainsharing program made this study a success. The factory management enjoyed the benefits of gainsharing; it was able to attract and retain talents and its gross margin grew by 87%.

Keywords: Gainsharing, Key Performance Index, Lens Manufacturing, Indonesia.

1. INTRODUCTION

A gainsharing plan is a type of management scheme that a firm utilizes to increase profitability by increasing the employees’ financial and emotional stake in the success of the business (Gordon, 2021). It involves offering employees financial shares of the business gains from improved performance to motivate them to perform better. A gainsharing plan directly equates employee earnings with performance and as such, is an effective instrument in boosting performance and
motivation levels (Gordon, 2021). Companies usually have choices among various compensation plans and decide which is most effective for their situation. Incentive systems in organizations are usually divided into two categories on the basis of the unit of analysis, for example, merit-based compensation, piece-rate incentive programs (where people are paid according to the quantity of output), bonus and commissions and the recipient of the reward; whether it is individual or a group (Black et al., 2020).

Several studies have shown the effectiveness of gainsharing incentives in meeting performance goals and a tool for performance improvement. The earlier studies Zondo (2017) and Benson and Sajjadiani (2018) recommended factories to review gainsharing plans as they did not turn out as well as expected. Earlier studies did not mention if after the gainsharing was implemented, and if the KPIs were not met, what revisions and changes that could be made to the KPI or to Gainsharing to achieve better results during the duration of the study. However, there is a knowledge gap where it is not really known how KPI can improve with gainsharing program implementation. This is of importance because performance goals are measured using KPI. So, the research question that we would like to answer is: When a gainsharing program is adopted, does the program’s strategic KPI improve?

The gainsharing program focused on this research was adapted by a polycarbonate lens factory after fire broke out on their manufacturing premises. The key requirements where various KPIs were identified namely achieving budget operating profits, Acceptable Outgoing Quality Level (AOQL), delivery on time, reduction of back-orders, yields and continuous improvement program. A qualitative method was used for this study where the results of KPI and gainsharing achievement was collected from factory management. With the cooperation of the polycarbonate factory management, the gainsharing plan would take place over six years and this study planned to document the tweaking (minor changes) made by the factory management, if needed, to improve their results. From a management perspective, this was important to manufacturing to make changes promptly when needed.

The hypothesis of this study was how a gainsharing program would improve KPI. The results proved the hypothesis was true, after some tweaking of the KPI requirement and gainsharing program performed by the factory management. The factory enjoyed good growth because their KPIs were met, and their employees benefited from the gainsharing program. This showed that the gainsharing program was effective in a collectivist society provided it was one common percentage payout for all employees. Implications for this study was gainsharing program could be used in other manufacturing plants in collectivist societies, rather than individualist societies, as this study showed the merging of one payout for all employees which is not an individualist trait. Future research could deploy a quantitative method to study in-depth the relationship between gainsharing and KPI.

2. LITERATURE BACKGROUND

2.1 Rewards System and Gainsharing

Rewards systems along with performance management are key levers used to motivate and drive individual and group performance (Black et al., 2020). Long and Shields (2010) stated that the reason why monetary rewards could be a powerful motivator and could help to attract and retain top performers was because they helped meet a variety basic need (e.g., food, accommodation) and higher level of needs (e.g., belonging to a group, respect from others, achieving mastery in one’s work). Other than a powerful motivator, it translated to other positive outcomes such as employee retention (Aguinis et al., 2012) which subsequently lowered time and money spent in training new workers (Gordon, 2021).
Reward systems could incorporate multiple components where some delivered equal rewards within the team, others delivered rewards equitably, for example, an organization would pay an employee his/her pay package including individual effort rewards, equally allocated team-based bonuses and equally paid reward from gainsharing based on plant’s productivity (DeMatteo et al., 1998). This was not just found in the United States of America, but also China, Australia, and England (Aguinis et al, 2012). The highest objective improvements were found in employees given monetary intervention programs compared to those who received social recognition and performance feedback (Aguinis et al., 2012).

Gainsharing is one of the several types of team-based rewards. Gainsharing is best described as a management system in which an organization sought higher levels of performance through the involvement and participation of its people (HR Guide, 2015). As performance improves, employees share financially in the gain where all employees at site or operation are included (HR Guide, 2015). Gainsharing is tied with pay for performance, encourages group cooperation and is plans that focus exclusively on productivity (Black et al., 2020).

Team financial incentives were commonly used to improve performance by motivating groups of employees and team-based reward strategies might be the first response as work most often needs to go through different hands to complete (Sciacovelli, 2018). Group incentive program overcome shortcomings of individual incentive program because it encouraged employees to cooperate with one another and with the corporation so that all employees could benefit (Black et al., 2020). Through a meta-analysis of 30 studies involving more than 7,000 teams, it was found that team-based rewards yield moderate positive effects on team performance (Garbers and Konradt, 2014). Team incentives would likely to be effective for teams with clear measurable goals and it was important that teams would be able to influence the criteria they would be evaluated on (DeMatteo et al.,1998). It would also be effective on teams with permanent assignments and/or whose work would continue for longer periods of time (DeMatteo et al.,1998).

Capital investment plays a role in labor productivity improvement, where companies that have invested capital (after the implementation of a gainsharing program) experienced improvement in labor productivity (Zondo, 2017). Gainsharing fosters a culture of continuous improvement (HR Guide, 2015) aimed by lean manufacturing philosophy (Cortes et al., 2016). Where companies adopt a holistic approach to continuous improvement, inefficient work practices will be filtered out of administrative systems, and production and support systems would become more streamlined and efficient (Chapman et al., 1997). Improvement in labor productivity ratios will reflect such system improvements (Chapman et al., 1997). Success of team-based rewards also depended on other organizational interventions introduced concurrently with team rewards, for example, employee involvement and International Standard Organization standard implementation (DeMatteo et al., 1998). In addition, gainsharing worked best when company performance levels could be easily quantified (HR Guide, 2015).

A good alignment between monetary rewards and performance allows organizations to attract and retain high performance individuals (Rynes et al., 2004). Several papers have shown gainsharing often accompanied other engagement programs as complements such as total quality management or Six Sigma. Therefore, within manufacturing, gainsharing plans were most commonly used by plants using team production because monitoring workers individually was challenging (Benson & Sajjadiani, 2018; Drago & Heywood, 1995; Weitzman & Kruse, 1990). The guidelines for implementing incentive programs effectively had been tabled by several studies; Black et al. (2020), Kretzschmar and Magno (2016) and Aguinis et al., (2012):

1) Define and measure performance accurately;
2) Make rewards contingent on performance (and consider individualism-collectivism culture norms);
3) Reward employees in timely manner;
4) Main justice in the reward system;
5) Use monetary and non-monetary rewards.

Performance was measured across departments and units where measures were commonly narrower and controllable by employees and the bonus was often paid as an equal percentage of compensation or cents per hours worked, rather than basis of individual performance, and a supporting employee involvement system would drive improvement initiatives (Kretzschmar & Magno, 2016).

Successful gainshare programs include all stakeholders' involvement, maintaining transparency and ensuring the plan's goals are in line with the organization goals (Roy & Dugal, 2005). Payouts could be based on the performance of plants, teams, or small work units (Gross & Duncan 1998). The gainsharing plan review board should consist of managers and department leaders who oversee and guide the process, develop measures, approve ideas, and monitor the plan's progress (Kretzschmar & Magno, 2016) as gainsharing programs success requires management commitment, training, and frequent and ongoing communications (HR Guide, 2015).

2.2 Key Performance Index and Organizational Factors
KPIs are metrics used by organizations to track success and guide their progress towards specific strategic objectives. It is important to consider corporate culture because it is a direct connection between organizational culture and performance whereby each specific feature impacts the strategy's implementation (Villazon et al., 2020). Several descriptions of KPIS have been discussed. Villazon et al. (2020) summarized the KPI categories into financial, strategic, tactic, project, lifestyle, safety, and sustainability. In a production point of view, the five strategic KPIs categories are cost, quality, flexibility, stock, and lead time (Cortes et al., 2016). The process of developing KPI metrics started with an input (of requirements and statements) symbolized as X, provided by a stakeholder (customer or supplier) to deliver outputs (delivery on time) symbolized by Y to customers (Oguz et al., 2012). This was shown in Figure 1.

Several studies have shown gainsharing rewards can help companies in achieving sustained improvement in performance measures. In one study, about 81% of companies reported success in gainsharing plans (Black et al., 2020). In a study of the automotive parts industry in South Africa, it was established that gainsharing improved productivity and reduced spoilage and absenteeism rates (Zondo, 2017). In the Ameri Steel USA study, its gainsharing demonstrated the effectiveness of using incentives to improve productivity within an organization; where the company generated an average of 8% annual improvements for four years, and the employees enjoyed average payouts equal to 46% if their base pay (Gross & Dunce, 1998).

It was found productivity rose by 18% after a garment manufacturer implemented a gainsharing plan (Hamilton et al., 2003). Gainsharing has been associated with greater productivity and lower absenteeism (Benson & Sajjadiani, 2018). In another study on gainsharing rewards based on
meeting product quality and worker engagement, quality did not statistically improve when workers were informed that they were eligible for quality bonuses; rather there was an increase in items returned to plant citing quality reasons (Benson & Sajjadiani, 2018). The workers, however, submitted more continuous improvement cards and the plant never missed total worker engagement target in quarters the plant was bonus eligible which showed gainsharing worked for continuous improvement (Benson & Sajjadiani, 2018). This study concluded while gainsharing was effective on worker engagement, it was not effective for product quality improvement, which was more important for organization.

In a study that analyzed the behavioral consequences of employee psychological involvement in gainsharing, it was found that employee gainsharing satisfaction was positively related to organizational citizenship behavior (Rhee & Welbourne, 2006). This was important as individuals engaged in organizational citizenship behavior can prevent problems, fit into groups, suggest ideas, and help one another beyond one’s job description, which in turn increases the possibility of achieving performance goals (Rhee & Welbourne, 2006). However, gainsharing rewards, just like any other monetary rewards, do not automatically improve employees’ job-relevant knowledge, skills, and abilities (Aguinis et al., 2012). As gainsharing is focused on productivity, it may lead employees to ignore other important objectives such as quality (Black et al., 2020). Gainsharing plans might also be resisted by unions, which prefer compensation to be based on seniority or job classification (Black et al., 2020).

For organizations that expand overseas, usually from a developed country to a less developed country (usually a collectivist society), with reasons of lowering production costing and increasing productivity, the transfer of knowledge became critical. In a collectivist society, there is a high preference for a strongly defined social framework in which individuals are expected to conform to the ideals in-groups to which they belong (Hofstede Insight, 2018). Organization challenges might surface from the need to change from an individualist to a collectivist nature working environment; and adapting incentive programs to be effective and relevant to local culture (Hofstede Insight, 2018).

Monetary reward systems that emphasize individual rewards is more successful in an individualistic society and the greater an organization’s collectivist nature the greater the emphasis should be on rewarding team performance where differentiation among team members is reduced in addition to rewarding individual performance (Aguinis et al., 2012; DeMatteo et al., 1998). When delivering performance feedback in a collectivist society, it is recommended to use non-confrontational language and preferably in informal settings (Aguinis et al., 2012).

In Hermawan's (2005) study on employees’ job satisfaction and rewards in chemical manufacturing in Indonesia, it was found that motivational initiatives were more effective when they formalized Standard Operating Procedures in the factory. Total Quality Management was not formally applied, but with safety meetings and safety talks; and employees who performed above the average were rewarded and under-performers would undergo training. Workers perceived that their reward was based on their skill, when they performed well and when their team performed well and perceived the production department as the heart of the company and predominantly determined the company output and quality. A minority felt team-based performance was an important factor despite annual individual appraisal and they also welcomed non-financial recognition (Hermawan, 2005). In Indonesia, it was observed that the lump sum payment during the month of Ramadan and end of financial fiscal year incentives were not sufficient to motivate the employees to give their best to the organization thus, a monthly gain share program was introduced, to encourage employees to go beyond their normal work routines give something extra and also get instant monetary returns the following month (Gordon, 2021).
Members influence, interact and share information and offer ideas for new and improved ways. A team climate is created to assimilate knowledge, develop common knowledge base and has the capacity to solve problems (Lakshinarasimha, 2017). Members are internal customers to one another, often matter more than external customers as one needed everyone in the organization for support in order to succeed and so one had to pay attention to internal customers (Peters, 2009). Participation increases productivity and thus causes financial success (Fadal, 2004). Team participation contributes to employee empowerment to function effectively (Lakshinarasimha, 2017). Empowerment is widely accepted as a potent way to enhance job performance and job satisfaction (Conger and Kanungo, 1988). Employee empowerment along with ethics, organization support and top management commitment directly contribute to job satisfaction (Lakshinarasimha, 2017). Empowerment has a positive influence on job satisfaction and organizational commitment (Chinomona, 2017). Gainsharing plans benefits businesses by fostering better employee engagement in the production process and ensuring higher quality of work (Gordon, 2021).

Setting of employee performance criteria and employees reward criteria rest on the leadership style of the organization as according to Peshawaria (2011), true leaders undertake the journey itself where the reward in the end was only the icing of the cake; and navigating all the obstacles and finding a way to succeed need huge amounts of energy; because the leaders need to be active in leading the implementation of any program. One needs to first find one’s own personal sources of energy, renew it regularly and then mobilize the energy to others (Peshawaria, 2011). To energize self, one needs to define purpose and values; then enlist co-leaders and address their expectations of their role, environment and prospects for growth and development as shown in Figure 1 (Peshawaria, 2011). The third stage is to galvanize the enterprise with the leader setting the direction, design the organization, and create a culture of excellence. This is summarized as a leader’s tool kit (Peshawaria, 2011).

In contrast, the dysfunctions of a team should be identified, as its presence could hamper management efforts to reward employees. According to Lencioni (2002), there are five dysfunctions. The first dysfunction is the absence of trust because trust is needed where peers are comfortable with each other about their mistakes, fears, and behaviors. The second dysfunction is fear of conflict where team members do not hesitate to disagree with, challenge and question one another, all in the spirit of finding the best answers and making great decisions.
The third dysfunction is a lack of commitment because genuine buy-in of important decisions takes place where all opinions are considered giving confidence to team members. The fourth dysfunction is avoidance of accountability which takes place where team members do not hold one another accountable adhering to those decisions and standards and only rely on their leaders as source of accountability and not one another. The avoidance of accountability is often subtle between peers because one deems another equal and does not feel it appropriate to tell another how to do their job. The buy-in from all members is important as plans will fail during execution as some might say “I never agree to it anyway.” The fifth dysfunction is inattention to results where collective results that define team success are sidelined due to individual agendas or ego-driven status. Leaders need to exercise trust, remove fear of conflict, be committed, accountable and be collective in their stance on agreeing to the rewards program and payouts calculations (Lencioni, 2002).

Understanding organizational health is critical for introducing a gainsharing reward program to a big manufacturing company. There were three biases that leaders need to watch out for – the sophisticated bias, adrenaline bias and quantification bias. The sophistication bias was about keeping it simple and straightforward which many educated managers find it difficult to embrace while the adrenaline bias was about leaders needing to be mindful of adrenaline bias, not afraid of slowing down and deal with critical issues in an un-urgent way. Quantification bias was a hindrance for overly analytical leaders to accept based on conviction and intuition level (Lencioni, 2012). A good health organization showed signs of minimal politics and confusion, high degree of morale and productivity and very low turnover among good employees (Lencioni, 2012). Stakeholder concept is important for an organization to grow. In Toyota, their guiding principle was to contribute to the economic growth of the country in which it was located (external stakeholders) and contributed to the stability and well-being of team members (internal stakeholders) (Liker, 2004). An effective stakeholders concept would result in stakeholders being more cooperative and thus more likely to reveal information that could further increase the organization’s value creation or lower its costs; increased trust lower the costs for organization’s business transactions, the likelihood of negative outcomes could be reduced, creating more predictable and stable returns; and the organization could build strong reputation that were rewarded in the marketplace by business partners, employees and customers (Rothaermel, 2017).

Having reviewed the literature above, a direct link has been shown between gainsharing and productivity, with labor productivity is measured by KPIs. For a manufacturing company, meeting KPIs are important in meeting performance measures which translate to meeting company goals. If the KPIs are not met, then the company goals are not met, and the company will eventually run into losses. The literature review has shown that one of the main gainsharing advantages is retaining talent (Long & Shields, 2020; Aguinis et al., 2012). Therefore, the proposition for this study is that when a gainsharing program is adopted, the program’s strategic KPI will improve.

3. METHODOLOGY
Having done a literature review, identified a problem statement of the factory to be studied and formed the hypothesis for this study, the strategic KPIs and criteria were defined as the basis for the measurement for actual results, along with the percentage of the gainshare. The polycarbonate factory management selected for this study defined the strategic KPIs and its criteria, and the calculations of gainsharing to be paid out. These would be communicated to all employees. The strategic KPIs criteria were determined on a monthly basis and the results of the KPIs achievements were measured on a monthly basis. The pay out to the employees would be done on a monthly basis in line with earlier study where payout was immediate for better motivation.
Data of KPIs results was gathered by the production supervisors who in turn submitted the final results to the Production Manager. The Financial Controller of the factory then calculated the percentage of payout and sought the approval of the President Director. The participants of the gainsharing were all the factory employees. These were communicated to all employees by meetings.

The method adopted in this study was quantitative with data of KPIs results and data of gainsharing percentage payout collected and tabled monthly in Microsoft Excel. The data was then plotted into graphs by months for a duration of six years.

The research process of this study was summarized in figure below.

![Research Process Diagram](image)

**FIGURE 3:** Research process.

4. **COMPANY BACKGROUND**

The organization studied is a well-established United States of America company in eye visual lenses, in which production from Minnesota has expanded its operations to Indonesia in 1998 for strategic and profitability reasons. The glass lenses and polycarbonate lenses factory, located in West Java, Indonesia, was established within the framework of the country’s foreign capital investment law and two years later joint ventures were formed involving local partners’ investment. The company conducted business with high ethical and safety standards and implemented ISO 9001 in 2008. In 2009, unfortunately the entire Indonesia factory was burnt down in a devastating fire. In 2010, a state of art factory was built and completed on the same location. Moving forward then, modern, and innovative polycarbonate lenses and glass lens product variants were manufactured. In 2012, anti-reflective coating production was added boosting the manufacturing capabilities of the Company. In the organization, the President Director led a team of senior managers and managers who was in-charge of Production, which covered the Polycarbonate Primary and Secondary Operation and Glass; Quality Assurance, Engineering Maintenance and Automation, Production Planning and Inventory Control (PPIC) and Warehouse, Finance, Human Resource (with Health Safety Environment), Information Technology (IT). They formed the factory management. The management has long recognized that employees’ satisfaction and recognition is important, and a form of rewards system should be in place; even though the factory has full infrastructure, facilities, and has good reputation being a US investor company with good products. The Gainsharing Program for manufacturing employees in the USA was successful and was thus introduced to Indonesia. The polycarbonate factory mentioned was also struggling to retain talent after the fire incident and a new team was hired.
In 2011, the polycarbonate lenses sales of the company comprised 76.1% of total sales and the glass lenses sales comprised 23.9% of total sales. The factory had about 690 employees. In that year, the gross margin profit for the Company on the overall was positive, with gross margin profit of the polycarbonate lenses positive, however the gross margin profit of glass lenses were negative. Unfortunately, the total manufacturing variance for overall, polycarbonate lenses and glass lenses were in the negative. The Gainsharing Program was first introduced in 2011 to increase productivity, on time delivery, and thus improve profitability to meet KPIs so that eventually the manufacturing variance could be positive. More so, after the new plant was built up after the major fire catastrophe, new teams had to be hired. The new employees were trained, however needed to be motivated to be retained and not leave the company.

The company needed to be on track in its performance measures as in the eye care industry, the demands were growing among the aging and younger individuals. The quality produced needed to be on par as there was increased demands in eyeglasses fashion, comfort, clarity, and safety. It was projected to reach 3.03 billion units by the year 2010 by Global Industry Inc. (Prweb, 2008). Presently, eyeglass lenses are available in three basic materials - glass, plastic, and polycarbonate and the Use of plastic lenses is gradually eclipsing the use of glass lenses. In meeting local needs, middle- and upper-income consumers living in urban areas and urban professionals who work in offices needed eye care products, as the nature of their work required them to work in front of computer screens for long periods of time daily (Businesswire, 2012).

The initial implementation was smooth, however, there were weaknesses in the rewards program and the company was tasked to identify the root problems and to find solutions to make the Gainsharing program work for their employees. This was of importance to the company because the KPI was tied to the criteria of the Gainsharing reward payout, which meant, if the employees were well rewarded, the Company was enjoying good growth. This study took place over six years where the external and internal environment changed over time and the Company took these into consideration when updating their KPIs and revising the Gainsharing payout.

4.1. Factory Key Requirements and Initial Outcome

In setting of the KPIs according to Oguz et al. (2012), the factory had several Key Performance Index (KPI) identified by the US Head Office, namely; on time delivery, reduction of job back orders, meeting process yields and continuous improvement programs. The overriding elements for profitability to achieve budget operating profits and Acceptable Out-going Quality Level (AOQL) which were non-negotiable from the management; and to avoid quality being sidelined while the focus was on productivity (Black et al., 2020). The budget operating profits term was translated to manufacturing variance. Using the guidelines of gainsharing implementation by Aguinis et al. (2012), the Gainsharing Program was rolled out to all employees in 2011 and it was a new incentive to all employees. On setting gainsharing payouts, the factory measured its performance and compared it with the historic baseline, a predetermined formula was used to share financial gains with employees according to Kretzschmar and Magno (2016).

The management introduced the program as following: the criteria set for polycarbonate (Poly) and glass lenses (Glass) production. In the Poly, the criteria were its Production Department achieving lower than 2% for AOQL, minimum 90% fulfilled for Job Order, costs of production (indicated as “costs in line”) showed a positive variance, and not a negative variance; and yield goal for the month must be met; not missed. In the Glass, the criteria were its Production Department achieving zero Customer Complaint, zero Back Order for all products, costs of production (indicated as “costs in line”) showed a positive variance, instead of negative variance; and yield goal for the month must also be met; not missed. The results were evaluated monthly in an excel format detailing each criterion with “Met” in green color, “Not Met” in red color and “Maybe” in grey color. The Gainsharing payouts were specific for Poly and Glass and a Common
payout for non-related production employees. The percentage of payout was determined by the number of criteria met and final approval from management. The criteria were shown in Table 1.

<table>
<thead>
<tr>
<th>2011 Gainsharing Poly</th>
<th>2011 Gainsharing Glass</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Criteria 1</strong> Less than 2% AOQL</td>
<td><strong>Criteria 1</strong> No Customer Complaint</td>
</tr>
<tr>
<td><strong>Criteria 2</strong> Minimum 90% Fill Rate on Job Order</td>
<td><strong>Criteria 2</strong> Direct Shipment on Schedule; No Back Order</td>
</tr>
<tr>
<td><strong>Criteria 3</strong> Costs in line – Positive Variance</td>
<td><strong>Criteria 3</strong> Costs in line – Positive Variance</td>
</tr>
</tbody>
</table>

TABLE 1: Gainsharing Criteria for Poly and Glass in 2011.

The initial outcome from 2011 to 2013 was well accepted. According to the management, this was because 5% of actual employees’ monthly salary was provided as rewards, therefore employees were very receptive to this program. Graph 1 showed the payouts in 2011.

In 2013, additional criteria were added as the Company signed up for more accreditations to meet customers’ demands. Concurrent with that, the management introduced a bonus system in addition to payouts for Poly. Poly was the main production and Glass was secondary. For the Anti-Reflective Coating (AR) production line it was not clear on the Gainsharing Criteria how these employees were rewarded and thus they were grouped under common payout. The additional criteria for Poly were quantity of lenses on hold below 10,000 pieces, increase from minimum of 90% to 92% for fulfilled job orders, completion of financial report in 3 days being met or not and completion of three continuous improvement (CI) projects was met or not. The bonus for Poly was the yield percentage increased more than 3% from target. For Glass, additional criteria where sea shipment schedule must be met at minimum 70% of the total shipments, completion of financial report in 3 days being met or not and completion of three continuous improvement (CI) projects was met or not. In May 2013, the new criteria and payout was table as per Table 2 and Table 3.
<table>
<thead>
<tr>
<th>No</th>
<th>Criteria</th>
<th>Actual</th>
<th>Payout (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yield</td>
<td>Not Met</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>On hold &lt; 10000 pieces</td>
<td>Met</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Minimum &gt; 92% on Job Order</td>
<td>Met</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Financial Report completed in 3 days</td>
<td>Met</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>3 CI completed in 3 days</td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>Bonus for Yield &gt;3% target</td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Total Payout</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

**TABLE 2:** Gainsharing for Poly in May 2013.

<table>
<thead>
<tr>
<th>No</th>
<th>Criteria</th>
<th>Actual</th>
<th>Payout (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yield</td>
<td>Not Met</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>Sea Shipment &gt; 70%</td>
<td>Met</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>No Customer Complaint</td>
<td>Met</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Financial Report completed in 3 days</td>
<td>Met</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>3 CI completed in 3 days</td>
<td>Met</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Total Payout</td>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>

**TABLE 3:** Gainsharing for Glass in May 2013.

In July 2013, a more streamlined criteria and bonus were revised for both production lines; even though Poly with AR production was the main and prominent department and Glass was much smaller. The revision was conducted to prevent any employee disunity and complaints. Upon confirmation of the revised Gainsharing program, the management conducted meetings to explain the program updates and to directly answer any doubts. The management realized this was more effective than sending emails or putting up memos. The revised criteria included a new collective criterion for both productions where it was mandatory for Poly and Glass to have positive variance on costs in line, AOQL for Poly at below or equal to 1.75% and zero customer complaint for Glass rose to management level. The Bonus for Glass is the same as Poly where the Yield goal exceeded by 3% from target. In addition, if one department had a negative variance for cost in line, the percentage of Gainsharing payout could not exceed the department which has a positive variance. With this implemented, employee satisfaction and good morale continued to be exhibited.

In November 2013, several incidents happened which showed the weaknesses of the Gainsharing Program, causing employee morale of the factory to go down. The Poly production failed in 5 criteria and only met 1 criterion. From the five criteria, two were barely missed by 0.2% on Yield and by 0.5% on Minimum on Job Order. The management learned that halfway through the month, when Poly production found out that they would miss the payout due to high AOQL, the employees did not hustle to improve the Job Order or Yield; and left the three CI projects incomplete. With that there was no payout for Poly. In the same month, Glass production did very well, and the Common payout was 2%; leaving Poly demotivated and jealousy set in. This incident repeated in February 2014, requiring immediate attention to review the Gainsharing program. There were months throughout the 2011 – 2013 period when the Gainsharing was substantially less or zero when the criteria were not met. The AR production employees felt they had been treated unfairly as they felt rewarded less and placed as “common”. This resulted in the employees starting to bicker and finger-pointing started to occur at both department level and individual level. Eventually company overall performance was affected and everyone was
referring to the Gainsharing program as the ‘loss share program’. The local labor union watched closely and voiced its apprehension and suspicion.

4.2. Factory Process Change

With the problems arising from the weaknesses of the Gainsharing, the management led by the President Director embarked on making changes. Making changes was difficult thus the management adopted the Peshawaria’s Tool Kit to energize self by reevaluating one’s purpose and values; then enlist a core team and finally energize the enterprise (Peshawaria, 2011). Top management were no longer allowed to be outside observers however they had to get their hands dirty and get involved in motivating employees. The senior managers and managers had to get together to identify and resolve any dysfunction in the teams to create genuine trust, buy-in and accountability (Lencioni, 2002).

The incentives of payouts and bonuses within the Gainsharing Program were re-evaluated and Company “SMART goals” was established. Engineering, Maintenance and Production Planning were the key drivers and systems were created with the help of IT and other departments to understand which parameters were important for employee motivation; as per Hermawan (2005) and Conger and Kanungo (1988). “SMART goals” were created and achievable, yet challenging targets were established. It was important to have realistic expectations and to stretch goals well; however, if the Company had consecutive months with no or very little gainsharing payout, employees would lose interest. Therefore, the “SMART goals” were to create a balance in managing expectations of both Company and employees. This was also no longer only a single department deciding criteria and not only the Human Resource Department organizing the meetings and workshops. A culture of a customer-supplier relationship was formed between interfacing departments according to Peters (2009) for Production, Quality, Warehouse, Engineering, Maintenance and IT, Human Resource, HSE and Security and Finance. This showed to the employees all departments had equal importance of role to play in achieving Company objectives and equal access to Gainsharing payout. Thus, a total commitment and genuine buy-in was required by all departments as per Lencioni (2002).

Re-evaluation was made of the criteria and payout schemes, based on employees and local country culture. Drawing on Hofstede (2018), an immediate observation was the difference between an individualist society of the company origin (the USA) and the collectivist society at the local setting (Indonesia). It was noted an individualist society would prefer equity-based rewards and a collectivist society preferred an equal-based rewards (DeMatteo et al, 1998). Therefore, even with the department payout and not individual payout, there were still weaknesses in the program in a collectivist society. In the end, the department payout for each Poly and Glass; and the common payout for non-related production employees was merged into one called “Total Points Achieved”. In this way, all the employees felt more motivated as a collective group at a company level and not departmental level to achieve the goals. The employees felt a stronger sense of teamwork and thus stopped complaining and felt treated fairly. It was determined that all processes to produce a product were equally important (either Poly or AR or Glass, and also the non-related production); and that either all employees get the same reward, or no one gets it, in accordance with Sciacovelli (2018).

A series of empowerment and team-based training programs were established. This training included providing employees with broadened ideas on efficiency, and how-to continuously improve. The company decided on safety, health, and environment apart from meeting the production and quality objectives as stated in the Gainsharing program. As manufacturing safety had to be of priority to eliminate accidents, hazard identification and risk assessment for all production work processes was initiated and safe training was given to all employees. The HSE formed a committee with programs, for example for fire drill, safety patrol, safety motorcycle rider training. Full disclosure was given where information was posted regarding any work-related
accident that occurred within the factory, with a follow-up on preventive or corrective action plants. Monthly safety meetings were conducted to address safety related issues and explore opportunities for improvement. In the area of health, a clinic was set up with a bed, first aid administration, and medical tools like blood pressure monitoring. A doctor and nurse were on standby during dayshift. In the area of environment, area for hazardous material and hazardous waste for containing chemical solvents, machine lubricant and other inflammable goods were segregated and clearly identified. There was periodical monitoring by an outside agency for air ambience, noise, water, and dust for both inside and outside factory surroundings. With these in place, employees could participate and were empowered to perform better, solve problems and be able to meet the Gainsharing criteria, in agreement with Fadal (2004) and Lakshinarasimha (2017).

Various Outbound and Team Outings were organized and designed with specific processes and groups. The first outing took place in a holiday destination location 3 hours’ drive from the factory in 2014, and in 2015 the team flew to Central Java, another vacation place. Company goals and strategies along with explanation of Gainsharing revised criteria and payouts were effectively communicated. Employees appreciated these outings because they gained more information and had interaction with the Top Management (Hermawan, 2005). Bearing in mind the importance of organizational health, the management was watchful of the three biases (sophistication bias, adrenaline bias and quantification bias) to be straightforward, to slow down on un-urgent task and have intuition over data analysis; so as to allow fun and bonding in (Lencioni, 2012). This continued as a yearly activity. Opportunities are provided to employees for both in-house and off-site training in technical, leadership, motivation, and team building, not as refresher training or keep motivational mood high but more for those who under-performed to do better (Hermawan, 2005). This was an intervention measure mentioned by DeMatteo for team-based reward to succeed (1998).

Performance appraisals were conducted yearly, and recognition was given for employees with outstanding ideas and contribution to company goals. In addition to the monthly Gainsharing Program, programs were set-up for annual performance bonus, a pension fund for all permanent employees, medical insurance for employees and their immediate families, and annual medical check-up for all employees. Annual recreation and family gathering with employees and their families were organized, and healthy meals were served at the company canteen. These were in line with Hermawan's (2005) findings where employees welcomed financial and non-financial appreciation and recognition. Specific conflict resolution workshops were formed to address any ambiguity of Gainsharing, in accordance with Hermawan (2005) that employees like to be heard and have issues resolved (Hermawan, 2005).

Companies must enhance the growth of society or they cannot contribute to its stakeholders (Rothaermel, 2017). The Company worked hard to have harmonious relations with the local labor union where periodic proactive meetings are held with employee representatives and management to hear the grievances and incorporate suggestions to create a better workplace. The company had active communications with the local community charity organizations, had its employees participate in sport competitions with other factories in the area; and joined human resource forums in the industrial estate area. With these, the Company enhanced its reputation among its stakeholders as per Rothaermel (2017).

5. RESULTS
Beginning from March 2014, the new Gainsharing Criteria was rolled out with all departments as one payout percentage for all employees. In 2012, anti-reflective (AR) coating products were introduced, and its gain share criteria was merged with Poly and Glass. This meant the three payouts were merged into one. The Gainsharing criteria tracked by month on four mandatory
criteria which gave a total point of 1%, which comprised AOQL of two Poly products to be below or equal 1.75% and 3%, zero complaint raised to management Level and Manufacturing Variance must be positive instead of negative. This was then followed by additional criteria where Poly, AR and glass had target yields to achieve for that month, no back order (termed as “On Time”), six continuous improvement projects closed within 3 working days and financial reporting completed within 3 working days. There was a bonus payout if the actual yield was above 3% of target.

In 2014, a special projects bonus was introduced at certain months of May, June, August, September, and October. Special projects varied from new products introduced, new technology machinery implemented or another type of raw materials experiment. Bonuses were paid when special projects were achieved and not paid when not achieved. The weightage of the percentage was assigned to every criterion after arriving at conclusion with the management and Department senior managers and managers for a balance in meeting Company objectives and input after outbound meetings and workshops on what would be the rewarding percentage to keep employees motivated and satisfied. The Gainsharing Criteria Program is shown in Table 4, with one final payout in percentage (marked $\times$) in Column 5, for all employees in the factory.

<table>
<thead>
<tr>
<th>Month, Year</th>
<th>Type</th>
<th>Criteria</th>
<th>Weightage Percentage For Gainsharing</th>
<th>Total Points Achieved (%) For Gainsharing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Month</td>
<td>Mandatory</td>
<td>AOQL</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Zero Complaint to Management</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Manufacturing Variance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional</td>
<td>Poly Yield</td>
<td>0.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AR Yield</td>
<td>0.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Glass Yield</td>
<td>0.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>On Time</td>
<td>1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6 CIP</td>
<td>1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Financial Report</td>
<td>0.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Special Project Bonus</td>
<td>1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yield &gt;3% Bonus</td>
<td>1%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TABLE 4: New Merged Gainsharing Criteria launched in 2014.

After its rollout, throughout the year of 2014, there were no complaints raised to management level and all manufacturing variance was positive in the mandatory criteria; all 6 CIP and financial reporting were met in additional criteria. Most AOQL were met except June. Yield targets varied; however, there were 2 months where it was above 3%. In conclusion, this meant that the company objectives were mostly met, and Gainsharing payout for employees took place almost every month except June. This was well received compared to 2011 with several months of no payout, which also meant company objectives were not met. Special projects took place in May, June, August, September, and October. All were met except October. The average payout for 2014 was at 3.8%. This is illustrated in Graph 2.
In 2015, the Gainsharing criteria remained the same with no changes as all stakeholders were satisfied with the payout outcome in 2014. In 2015, there were payouts in all months except September. The average percentage of Gainsharing payout was 5.2%, which was an increase of 1.4% from 2014. In addition, there were nine months of bonus payouts for yields above 3%, which achieved more than 2014 with only 2 months of payouts. Therefore, the Gainsharing program benefited more in 2015 compared to the previous year.

In 2016, the Gainsharing payouts were achieved every month, even though the average payout was 4.65%, lower than 2015. This was also compensated with special projects being paid out.
more this year at 5 months, compared to 2015, with only 2 months. The employees were satisfied.

The Gainsharing payouts in 2014, 2015 and 2016 were successful with almost monthly payouts. This also meant Company performance goals were met. The bonuses for yield above 3% and where special projects objectives met were paid out not monthly however the employees understood and accepted the criteria.

In 2016, the overall manufacturing variance was positive, along with Poly and AR production gave positive manufacturing variance. This follows Rothaermel (2017) where increased trust lowered costs and reduced the likelihood of negative outcomes. Only Glass gave negative manufacturing variance. This was a great improvement from 2011 where the overall, Poly and Glass were in the negative. This is shown in Table 5.

<table>
<thead>
<tr>
<th>Year to Date Manufacturing Variance</th>
<th>2016 '000 (USD)</th>
<th>2011 '000 (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>+589</td>
<td>-635</td>
</tr>
<tr>
<td>Poly</td>
<td>+401</td>
<td>-503</td>
</tr>
<tr>
<td>AR</td>
<td>+397</td>
<td>0</td>
</tr>
<tr>
<td>Glass</td>
<td>-157</td>
<td>-132</td>
</tr>
</tbody>
</table>

**TABLE 5:** Comparison of Manufacturing Variance for Year 2016 and 2011.

For Glass production which did not show improvement in the years could be due to other external and internal factors not covered in this study. It could be due to slow Return of Investment (ROI) of production machinery for example. This did not impact the effectiveness of the Gainsharing program because the overall Company objectives had been achieved.

The Company gross margin increased 87 times in 2016 compared to 2011 in overall performance and the Poly and AR gross margin grew 7 times since 2011. The Company achieved its KPI by
meeting delivery on time, reduction of back orders and meeting yield targets with a big group of satisfied employees for many years. The Company managed to retain talents especially after the major fire incident and employee turnover was low according to its Human Resource Department. Its 800 strong employees continued to meet consumer growing needs by being able to increase manufacturing capabilities. The company reaped good growth and enjoyed healthy profits finally. According to the management, the difference was “day and night". Going forward, as the employees become more developed over time, they may respond differently to group bonuses and team-based rewards may only be effective to the extent that they could be tailored to address changing needs at different developmental stages (DeMatteo et al, 1998). Therefore, soon the Company needs to reconsider its team’s development growth and revise the gainsharing program accordingly.

6. DISCUSSION

With the data collected and presented in the graphs above, it showed that the hypothesis of this study was proven where when a gainsharing plan was implemented, the strategic KPIs would improve. These findings agreed with studies shown in Ameri Steel (Gross & Duncan, 1998), Hamilton (2003), Garbers and Konradt (2014), Kretzschmar and Magno (2016) and Black et al. (2020). The elements of agreement were with the study done by Gross and Duncan (1998), and Hamilton (2003) where gainsharing proved its effectiveness in improving productivity in Ameri Steel. This study echoed Black et al. (2020) where 81% of companies reported success in gainsharing. This study agreed with Garbers and Konradt (2014) in showing team-based rewards yield positive effects on team performance. This study agreed with Zondo (2017) that gainsharing improved productivity after capital investment had been made because this factory had to be rebuilt after fire. This study was also in agreement with Kretzschmar and Magno (2016) where the gainsharing guidelines implementation had to consider individualism-collectivism cultural norm and this study’s findings showed collectivist traits were at play when different departments were receiving different percentages of payout. As the KPIs were achieved and gainsharing payout was almost consistent, this study also proved there was a good alignment between gainsharing and productivity due to good alignment (Rynes et al., 2004). The collectivist element where the different gainsharing percentage payout originally meant for two production departments and one for overall (three varying payouts according to which department the employee worked), had been transformed into one fixed factory percentage payout for all employees; regardless of departments. This further confirmed studies by Hofstede (2018), Black et al. (2020), Hermawan (2005) and Kretzschmar and Magno (2016).

Since the study was successful, the factory management reported that it enjoyed low employee turnover, agreeing that gainsharing did contribute to attracting and retaining talents (Long & Shields, 2010; Aguinis et al., 2012). The communication between managers and employees on the program and the following changes to the program proved effective; in line with citation by Black et al. (2020). The process change implemented by the factory showed that developing an easy-to-understand formula for sharing gains, maintaining transparency, and ensuring that the gainsharing plan’s goals were in line with the organization goals (Roy and Dugal, 2005). The involvement from stakeholders proved important as well when revising the gainsharing program, confirming studies by Liker (2004) and Rothaermel (2017). This study proved to provide better results than earlier studies in Zondo (2017), and Benson & Sajjadi (2018) where the authors concluded that the factories needed a review and revision of their gainsharing rewards as not all hypotheses were proven. The six-year period study provided time for the management to make some changes to the gainsharing program to gain better results.

7. CONCLUSIONS

The research question for this study was answered where gainsharing was implemented, the strategic KPIs improved as it confirmed earlier studies on the positive relationship between KPIs...
and gainsharing. This study confirmed when there was a good alignment between gainsharing and performance measures, the gainsharing program would succeed. The study provided time to identify gaps that exist in the current program followed by updating the compensation process with revised performance elements (Black et al., 2020). The collectivist element consideration, clear communication, stakeholders’ involvement, and the factory management willingness to do some tweaking and revision of the gainsharing program added success to this study. This was aligned to organization and management theory reviews (Cristofaro et al., 2021). The overriding benefits of gainsharing for the factory management was that it was able to attract and retain talents. The findings of this study could continue to be used by the factory management; and other locations should it expand next.

In conclusion, the President Director’s words at the end of this study: -

“The Gainsharing program was an effective way to provide instant gratification to employees, because they obtained it every month, as opposed to once-a-year salary increases and yearly statutory festival allowances. This provided additional disposal income for them, something that was over and above what employees had planned for, and allowing them to purchase certain necessary items or even take the family out for a dinner or an outing. The investment cost for the company was minimal and was only in labor costs, but the advantages were enormous in terms of employee loyalty and in general increase in the "employees happiness index". The program, of course, needs to be managed prudently so that expectations are effectively managed. Such a program could be implemented across a broad section of businesses since it fosters Team Building and also rewards employees”.

7.1. Implications for Research and Practice
The close relationship and openness between research academics and industry brought about success in this study and could be the ingredients for future research in other types of manufacturing sectors in a collectivist society, in the same country or other countries. The findings in this study could provide a recommendation to the industry; in particular the manufacturing sector, to strongly consider implementing gainsharing to incentivize employees to meet their KPIs. The manufacturing sector should commit to paying the gainsharing on a monthly basis and open to make changes on the program when needed as this study showed these were important for success. Since this study was qualitative, future research on KPIs metrics and gainsharing rewards should be a quantitative method for in-depth measurement; and including surveys conducted to employees in addition to company data collection. Other team-based rewards could be explored and measured for their effectiveness in meeting different types of performance goals, such as skills-based performance and project-based performance.

8. REFERENCES


IJBRM Special Issue - People in Organization: Investigations of Environmental Factors in Organizational Behaviour (SIBRM7) : 2021


