

At the same time that Boulton-and Watt were devising their scientific approach to management, Robert Owen was achieving dynamic results in the cotton mills of New Lanark, Scotland. Having attained great success as manager of a large cotton mill in Manchester, Owen eventually became a manager and partner in the Chorlton Twist Company of Manchester and persuaded his partners to buy the New Lanark Mills. Owen's theory was that he could operate this company more successfully and on higher principles than other commercial mills in the country.

Owen's New Lanark Experiment At the time Owen took over, the New Lanark Mills had two thousand employees, 25 per cent of whom were children from poorhouses and charities. Although the children had been well treated by the former owner, conditions of the people in general were unsatisfactory. Owen set about changing all this; he improved the housing and through his own personal influence taught thrift, cleanliness and order. He opened a store where goods could be bought at little more than cost, but he placed the sale of liquor under strict supervision.

In the mills he instituted similar reforms. No children under ten were employed; instead, they were sent to school. Those who were permitted to work had their day limited to 10% a hours, and punishment of employees was forbidden. Meanwhile, if any workers in the factory had a complaint, Owen's door stood open. He believed that attention to the human element was of maximum importance, and he was right. Although the workers initially viewed him with suspicion, he soon wan their confidence, and the New Lanark Mills proved to be highly profitable.

Work reforms were instituted.

Owen explained his basic managerial philosophy and formula for success to a group of manufacturers in the following way:

... you will find that from the commencement of my management I viewed the population (the labor force)... as a system composed of many parts, and which it was my duty and interest so to combine, as that every hand, as well as every spring, lever, and wheel, should effectually cooperate to produce the greatest pecuniary gain to the proprietors... Experience has also shown you the difference of the results between a mechanism which is neat, clean, well-arranged, and always in a high state of repair; and that which is allowed to be dirty in disorder, without the means of preventing unnecessary friction, and which therefore becomes, and works, much out of repair... If, then, due care as to the state of your inanimate machines can produce such beneficial results, what may not be expected if you devote equal attention to your vital machines—the human resource], which are far more wonderfully constructed?

Boulton and Watt's scientifically designed factory and Owen's human relations approach to management were both successful because they combined the "production" and "people" sides of management. This was no easy task, because it required managers to identify and synthesize physical and human laws of eration and from them construct a leadership style that would elicit the greatest efficiency from all the workers. Unfortunately. with the exception of Boulton, Watt, Owen and a handful of others, most were unable to meet the challenge, treating their workers less as human beings and more as factors of production. When human considerations were afforded the employees, it was usually in the name of higher productivity. For example, managers who permitted rest breaks did so because they realized a fatigued worker needed to regain his strength if he was to produce higher levels of output. These basic ideas are found in the writings of numerous individuals of the time such as Charles Babbage.

Human resources are important.