CHAPTER 6

RESULTS

6.1. Introduction

This chapter focuses on the findings of the study done in the seven South African motor manufacturing companies. Meaning is given to the results as displayed in the summarised report (see annexure 3 and the sections of this chapter) which had as its basis the detailed report of Annexure 2. The results are systematically discussed in categories which correspond with those in the interview guide and summarised report.

As mentioned in Chapter 5 (p 99) the companies will be referred to by their coded names. These codes do not only refer to the particular company but also reflects their position in terms of level of labour productivity. The codes are in alphabetical order from A to G which thus reflects the descending order of labour productivity. Therefore company A has the highest labour productivity and company G the lowest. For example, the code, company C, not only refers to a particular company but also indicates that this company had the third highest labour productivity. For brevity's sake, the results will be discussed according to code, without specifically mentioning the company's position in terms of labour productivity.

6.2. Size of job

TABLE 6.1: The relationship between size of jobs and labour productivity

	SIZE OF JOB INDICATORS				
COMPANIES	NO. OF TASKS	MAINTE-NANCE: THINK/ CALL FOR HELP	LENGTH OF JOB CYCLE (MIN.)	% MULTI-SKILLED	USE SKILLS MATRIX
A	6-10	think	2,7	90%	yes
B	6-10	think	7	80%	yes
C	6-10	think	3	80%	yes
D	5	think	7	90%	yes
E	5	call for help	3	50%	no
F	2-4	call for help	3,5	50%	(yes)
G	2-4	call for help	7,5	30%	no

(Note: Brackets indicate that data either needs further qualification, was uncertain or did not reflect the true situation)

(i) As seen in the table above the operators in the three companies (A, B and C) with the highest labour productivity could on average perform six to ten tasks. Operators in companies D and E with moderate labour productivity could perform an average of five tasks while in the two companies with the lowest labour productivity, namely companies F and G, operators could

perform two to four tasks. There is therefore a clear pattern here that in companies where operators on the trim and mechanical assembly line can perform a greater number of tasks the labour productivity is higher. An association exists between these variables. This corresponds with the results that Nissan (UK) achieved through multi-skilled operators (refer chapter 4, pp 64, 73-74).

(ii) Furthermore, table 6.1 shows that when a small technical problem occurred on the assembly line operators in the four companies with the highest labour productivity (companies A, B, C and D) were expected to think and come up with causes and possible solutions to the problem and therefore participate in problem-solving. This was not the case with the three companies with the lowest labour productivity (companies E, F and G). When the problem occurred they were merely expected to call for assistance. Here too then a clear pattern emerges, namely that labour productivity is higher where operators participate in maintenance and take an interest in and responsibility for the efficiency of their work. In both Nissan (UK) (refer chapter 4, p 64) and Pilkington Glass (UK) (refer chapter 4, p 69) the participation of operators in maintenance was regarded as important for efficient production.

(iii) Of the seven companies four companies (A, C, E and F) had an average job cycle of approximately

three minutes. Companies B, D and G had job cycles of seven minutes. No clear pattern could be seen here. There is however, an explanation for the longer cycles in two of the three companies, seeing that they build more sophisticated cars. Furthermore, those two companies place more emphasis on quality rather than volume and therefore the speed of the line is less important than in the true mass producers. It was also ascertained that the job cycle and therefore the speed of the line was influenced by many factors, for example, the number of lines, whether the lines are dedicated to certain models, the volumes required, the motivation of the workforce, the availability of supplies and the layout of the factory which determines the amount of space for parts at the assembly point. (The lengths of job cycles in table 6.1. are those for passenger vehicles in all the companies. The job cycles in light and heavy commercial vehicles are longer in all the companies seeing that a smaller volume of these vehicles is required and produced).

No association between the length of the job cycle and labour productivity could therefore be found. As far as the researcher could ascertain there is no study in literature that has proved a significant relationship to exist between the length of a job cycle and labour productivity. In Sweden (chapter 3, p 41) a study did however find that a job cycle in light assembly could be lengthened up to 20-25 minutes with no loss in

efficiency.

(iv) Regarding the percentage of operators that were multi-skilled it appears from table 6.1. that the four companies A, B, C and D with the higher labour productivity had more operators who were multi-skilled (for example 80% to 90% of their operators) than the lower productivity companies (E, F and G) who had between 30% and 50% of their operators who were multi-skilled. Multi-skilled refers to operators who are trained to do more than three tasks, and is therefore cross-trained. All of the companies stressed the cruciality of multi-skill training, specifically in the light of absenteeism which has a major impact on productivity. Companies A, B and C said that their higher percentage of multi-skilling was achieved through a planned programme of training.

A clear pattern therefore emerged from the data, namely that where companies had a higher percentage of multi-skilled operators the labour productivity was higher. An association therefore existed between the degree of multi-skilling and labour productivity. This corresponds with the successes achieved with multi-skilling in Swedish companies (refer chapter 3, pp 43-44), Nissan (UK) (refer chapter 4, pp 64, 74), Pilkington Glass (UK) (refer chapter 4 pp 68-69, 75), Ford (UK) (refer chapter 4, pp 75-76) and Caterpillar Tractors (UK) (refer chapter 4, p 77).

(v) Five of the seven companies (A, B, C, D and F) made use of a skills matrix (sometimes called a versatility chart or an inventory skills chart) whereby the different tasks an operator was able to perform were ticked off alongside his name. This is done for each team which enables the team leader or supervisor to do line-balancing. Furthermore it facilitates training in that it not only indicates which skills an operator has, but also in which tasks the team has too few trained operators. As can be seen in table 6.1. the two companies (G and E) that do not make use of the skills matrix have the lowest and third lowest labour productivity respectively. The company with the second lowest labour productivity has recently implemented a skills matrix which is not yet working effectively. Companies A, B and C make use of quite an elaborate system, which is either computerised or manually completed by team leaders or supervisors, but with the emphasis on making it as visual and meaningful to the operators as possible. **It does therefore appear that a positive association exists between the degree of labour productivity and the existence of an efficient skills matrix.**

6.3. Job categories and descriptions

TABLE 6.2 : The relationship between job categories and labour productivity

COMPANY	JOB CATEGORY INDICATORS			
	NO. OF CATEGO-RIES	CATEGO-RIES RE-STRICTIVE	JOB DE-SCRIPTIONS RESTRIC-TIVE	SATISFIED WITH CATE-GORIES
A	8	no	no	no
B	7	no	no	no
C	9	no & yes	no	no
D	9	no & yes	no	no
E	9	yes	no	no
F	8	yes	no	no
G	9	yes	no	no

(i) As can be seen from the above table there does not appear to be an association between the number of job categories for which different pay scales exist and labour productivity. Four companies (C, D, E and G) have nine categories of which two are covered by an industrial council agreement. Companies A and B which have the higher labour productivity do have fewer job categories than the above four. However, company F which had eight categories had the second lowest labour productivity. Therefore a definite pattern could not be found.

All the companies had a great number of job titles and descriptions within these categories. Without exception all the companies emphasised their dissatisfaction with the large number of categories and job titles and that they would like to reduce both.

(ii) With regard to the restrictive nature of these categories it appears from table 6.2. that companies A and B, with the higher labour productivity, did not find these categories restrictive. The reason for this was that operators were expected to perform tasks and help out where necessary irrespective of their job category, because that was the culture of the organisation. Companies C and D said the categories were to a certain extent restrictive. Although operators were expected to do any other tasks which could be in a higher or lower category they said that they could not keep them in higher categories for long periods since they then wanted higher pay or promotion. The categories were therefore restrictive when it involved an operator working for a long period in a higher pay category. Companies E, F and G with the lower labour productivity reported that the categories and job titles were very restrictive in that operators not only wanted higher pay and promotion for doing tasks in higher categories but also tended to be unwilling to do other work. The reaction was often that it was not their job. The latter is naturally also an indication of a culture,

commitment and attitude problem. It is for all the above reasons that the companies would like to reduce further the number of job categories. The motor industry union, National Union of Metal Workers of South Africa (NUMSA), is strongly resisting any reduction in the number of categories and job titles. **The data therefore reveals that a pattern does exist between the degree of restrictiveness of job categories and labour productivity. An association can be seen where companies with higher labour productivity experience their job categories as less restrictive than do companies with lower labour productivity.**

(iii) None of the companies found their job descriptions to be restrictive. The reason for this was because descriptions were not detailed and specific but were short and meaningless. In fact where job descriptions existed they were seldom used, since emphasis in assembly line jobs in the motor industry have been placed on operator procedure manuals, which explains the steps to perform a given operation. The job descriptions would become extremely restrictive if the union was to enforce them exactly as they existed in documents. **No association could therefore be found between the restrictive nature of job descriptions and labour productivity.**

In the literature it appeared that job categories and titles were very restrictive in

nature and that great emphasis was placed on reducing their numbers (refer Wickens, chapter 4, pp 62, 74; Chaplin and Fillingham, chapter 4, pp 68-69 and Bell, chapter 4, p 81). A possible explanation for the differences in extent of restrictiveness could be that in the South African motor manufacturing industry the attitudes of operators are less hardened and that unions have not focused much on the actual work operations and job categories and descriptions.

6.4. Compensation system

TABLE 6.3. The relationship between compensation systems and labour productivity

	COMPENSATION SYSTEM
COMPANY	REWARD FOR EXTRA SKILLS
A	operators: no team leaders: yes
B	cperators: no team leaders: yes
C	operators: no springers: yes
D	yes: 10c ph for more skilled
E	operators: nc springer: 15c ph more
F	operators: no springers: yes
G	operators: nc springers: 5c ph more

(i) As seen in table 6.3 none of the companies except company D rewarded operators for acquiring additional skills. Company D paid the operator who had more skills 10 cents per hour additional to the pay received in his job category. The other companies all mentioned that the ideal would be to have a flexible pay structure whereby operators could be paid extra for each additional skill acquired. However, they regarded the additional administration that it would involve as a major restraint, although companies A, B and C were sure that the actual benefit would outweigh the cost by far.

Where companies such as C, E, F and G made use of springers, slipmen, reliefmen and repairmen they were paid between five cents and 15 cents per hour extra (within their categories) because of their multi-skilledness. (As seen above these people are named differently at the different companies so for comparability and confidentiality they are referred to as "springers" throughout table 6.3. Companies A and B who made use of team leaders also paid them more within their categories.

No association between paying for additional skills and labour productivity could be found in the data.

Four examples could be found in literature where employees were rewarded for additional skills obtained, namely Pilkington Glass (UK) (refer

chapter 4, p 69), Caterpillar Tractors (refer chapter 4, p 77), Motorola (refer chapter 4, p 80) and Lechmere Incorporated (refer chapter 4, p 78). It is still a very new concept and the administration costs are sometimes considered to be too high.

6.5. Detecting quality defects

TABLE 6.4 : The relationship between the responsibility for detecting quality defects and labour productivity

	DETECTING QUALITY DEFECTS
COMPANY	WHOSE RESPONSIBILITY
A	supervisor and operator production is responsible your own car
B	operator, supervisor and inspector production is responsible
C	at the source: operator everyone
D	foreman and inspector everyone through profit bonus
E	inspector everyone supposed to be
F	inspector
G	inspector

(i) In the above table a clear association could be seen in the degrees of labour productivity and who is responsible for detecting quality

defects. In companies E, F and G (who had the lowest labour productivity) the quality inspector was responsible for the quality of the vehicles. In companies A, B and C where labour productivity was higher, the operators and supervisors were firstly responsible for producing quality work and because of their higher levels of flexibility and multi-skilling they were more equipped to detect quality defects. These companies emphasised that the production workers (the source) were responsible for quality and not the inspectors. One of these companies went further by having both individual and group inspection on the line and by encouraging the concept of putting together your own car. The latter involved an attitudinal approach whereby the operator was encouraged to perform his tasks in such a manner as if it was his or her own car he or she was making. The operator's responsibility for quality was so highly regarded in this company that every operator was given the power of stopping the line if a quality problem occurred. Company D followed a slightly different approach. Here the supervisors and inspectors were primarily responsible - the inspectors for detecting the defects and the supervisors for training the operators to do a quality job. The supervisor's performance was rated against the number of quality defects that occurred in his section. However, the operators were encouraged to do a quality job because they took pride in building high quality cars and because it would influence

their profit bonus for which everyone in the company qualified annually.

The importance of giving feedback on quality to the individual operators was stressed by all the companies, however it did not occur sufficiently in all the companies. Quality circles and similar team approaches existed in at least three companies; however, in some with more success than in others. This finding regarding operators' responsibility for quality strongly corresponds with those of Wickens (refer chapter 4, p 63), Chaplin and Fillingham (refer chapter 4, p 69) and Alster (refer Chapter 4, p 80).

6.6. Training for flexibility

TABLE 6.5 : The relationship between training for flexibility and labour productivity

	TRAINING FOR FLEXIBILITY				
COMPANY	NO. OF DAYS	WILLING-NESS	POLICY	WHO TRAINS	TYPE OF TRAINING
A	> 2	very eager	yes thinking	team leader	on-the-job, holistic:literacy, productivity improvement training 6M

TABLE 6.5 : The relationship between training for flexibility and labour productivity (cont.)

	TRAINING FOR FLEXIBILITY				
COMPANY	NO. OF DAYS	WILLING-NESS	POLICY	WHO TRAINS	TYPE OF TRAINING
B	> 2	very eager	yes	team leader, super-visor & co-workers	on-the-job, shop-floor manage-ment
C	1-2 hrs 10 days	(eager)	yes	super-visor & co-workers	(skills) co. clo-sure provided skills
D	2	(eager)	yes	team leader & super-visor	techni-cal skills, 6M, problem-solving
E	> 2	(willing)	yes	super-visor	trained pool, cross-training training allow-ance scheme
F	> 2	(willing)	yes	co-workers, super-visor & springers	techni-cal skills
G	> 2	(willing)	(yes)	super-visor	skills

(Note: Brackets indicate that data either needs further qualification, was uncertain or did not reflect the true situation)

(i) The data in the above table reveals that in all seven the companies it takes the average operator two days or more to learn his tasks. Learning the actual operation or task could take a few hours but learning to do the operation to standards of quality, and within the set period of time as well as to problem-solve could take up to three weeks. On the more sophisticated cars the learning period was even longer. The learning period is also influenced by the speed of the line, the degree of complication of the task and the learning potential of the operator. **No association between the number of days it takes to learn a task and labour productivity could be found.**

(ii) **A clear association between the level of eagerness to undergo training for other tasks and labour productivity was found. For example, in companies where operators had a higher level of eagerness to undergo training, labour productivity was higher too.** As seen in table 6.5 the operator's motivational level was classified into three different categories of willingness. Companies A and B's operators were found to be very eager to undergo training whilst in companies C and D with lower labour productivity they were found to be eager. In companies E, F and G (the companies with the lowest labour productivity) operators were willing to undergo training but were not eager. However, this is a generalisation for there were

individuals in the latter companies who were very eager to learn other tasks. All the companies except A and B stressed that they had many employees who felt comfortable in their jobs and did not want to move from the job or the team that they knew well and felt comfortable and secure in. This was most frequently found amongst older workers. The willingness was also influenced by the fact that the additional training could lead to the operator being promoted into a higher category. This would mean overtime and therefore those operators who generally were not committed to the company or toward co-operating with management were, in fact, not unwilling to undergo training.

All seven companies emphasised the importance of training and cross-training operators. They also all felt that they were not doing nearly enough training. One company, in particular, sets monthly targets for cross-training which, due to many constraints, are not always achieved. Many constraints exist within the industry, amongst others, the time it involves, the cost of taking people off the job for training and the availability of other skilled operators to hold down the job of the operator who is receiving training. However, most of the companies realise that these costs are very low when considering the long-term survival and growth of their company. One company, in fact, mentioned that they were losing cars to schedule every month

due to insufficient cross-training. Wickens (refer chapter 4, p 64) also mentions the cost of cross-training and that companies cannot train everyone to do everything.

(iii) All the companies affirmed that they had training policies which aimed to train operators for as many tasks as possible and to train them to the limit of their potential. Company A furthermore stressed that its aim was to train in such a way that it improved the thinking ability of operators, rather than just to perform a given task efficiently. **No definite pattern could be found between the training policy followed by a company and its particular labour productivity.**

(iv) **Regarding the identity of the trainer, no significant association could be found with labour productivity.** In three companies (A, B and D) team leaders were training the operators. In all the companies (except in Company A where the team leader did all the training) the supervisor was involved in training the operators. In companies B, C and F skilled operators were also used to train other operators. In company F springers assisted the supervisor with training.

(v) As can be seen in table 6.5 all seven companies did extensive skills training which mainly occurred on the job. This related to the actual skills needed by the operator to perform the

operations. Company C did the least skills training because of the availability of skills and the high unemployment prevalent in its region. Companies A, B and D - with higher labour productivity, did a great deal of indirect training; for example, productivity improvement training, literacy training, problem-solving, shopfloor management and general management training. Companies E, F and G with the lower labour productivity focused mainly on technical skills training. **A pattern does therefore appear that the companies that do more holistic training and stimulate the operators to use both their cognitive and motor skills, have higher labour productivity than do companies who focus only on manual skills training.**

One company made use of an extensive training evaluation concept. With this concept they evaluate and indicate on the skills matrix not only which operations the operator can perform but also how well the operator can perform the tasks. This matrix with the ratings per person per task is made visual within each team area. It assists the team leader and supervisor in line balancing and also creates motivation and group pressure toward acquiring more skills. Although the researcher expected to find more direct influence between training and labour productivity, the reason for its absence could be because all forms of training make some contribution - often in very indirect ways.

6.7. Mobility, rotation and absenteeism

TABLE 6.6 : The relationship between job rotation and labour productivity

	ROTATION INDICATORS		
COMPANY	RESTRICTIONS ON MOBILITY	ROTATION POLICY	ABSENCE
A	none	yes team leaders, balance themselves	relief system, group pressure, divide work coloured jackets
B	none	yes team leaders, skills matrix	team leaders divide work, increasing cover
C	none	yes skills matrix, management	springers: cover, matrix:divide work & rotate
D	none	yes (programme : 1984) 3 jobs	springers: absentee cover
E	some	(yes) personnel dept.	springers share jobs
F	(none)	yes classification audit	absentee cover springers, poolmen & supervisor

TABLE 6.6 : The relationship between job rotation and labour productivity (cont.)

	ROTATION INDICATORS		
COMPANY	RESTRICTIONS ON MOBILITY	ROTATION POLICY	ABSENCE
G	(none)	no formal policy, (programme), (small scale: promotion)	springers, maximum cover

(Note: Brackets indicate that data either needs further qualification, was uncertain or did not reflect the true situation)

(i) As can be seen in table 6.6 none of the companies had formal, written restrictions, created by the company or union, on the mobility of operators. Informal and indirect restrictions were, however, visible in companies E, F and G, which were mainly created by the unions, shop stewards and operators themselves. These took the form of discouraging operators from rotating if required to by the company and requesting higher pay or promotion if it involved rotation into a higher pay category irrespective of period of time. Supervisors and team leaders in these companies were pressurised by shop stewards when they rotated operators to different departments or sections. **Thus a relatively clear pattern emerged indicating that there is an association between the degree of restrictions on mobility and labour productivity to be found in the data.**

A partial explanation for this could be that in companies where higher labour productivity is prevalent, management have stronger control over the workforce and therefore do not allow themselves to be restricted by workers, shop stewards and the union.

(ii) Six of the seven companies have a rotation policy. Company G tried to incorporate a rotation programme so as to improve its cover for absenteeism but it was rejected by the union and shop stewards. Rotation now occurs on a small scale in this company and according to the production director it is inefficient. In all the companies including company G there is a natural form of rotation which occurs when an operator is promoted or when an operator is unhappy in a particular team. Neither of these is however done specifically to improve flexibility or multi-skilling. The four companies A, B, C and D with the highest labour productivity said in different ways that rotation of operators was a necessity in managing their departments effectively. In the other three companies (E, F and G) the rotation that management wanted was in different ways jeopardised either by shop stewards, the union or operators themselves. With the latter it manifested in their attitudes, commitment and culture.

(iii) As seen in table 6.6 companies A and B relied on team leaders to arrange rotation and see to line

balancing. Company B and C made use of an effective skills matrix (also named versatility chart) to determine who needed to be rotated. In company C rotation was encouraged amongst managers too. The Managing Director regarded it as so important that 63% of their managers have been in their jobs for less than two years. Company D tried a rotation programme in 1984 but found that operators (especially older employees) were not very keen on rotation mainly because they wanted to remain in the jobs that they felt comfortable and secure in and usually did not want to leave their team. Furthermore, it seemed as if people never really knew one job well. Obviously this was a far too structured and rigid approach. When they changed their approach to one where the objective was to have every operator trained in three jobs and every job could be done by three operators the programme was accepted and started to show results.

From the data it appeared that in company E the rotation was managed and monitored through the personnel department while in company F they often had to do a classification audit to see where operators were and whether they were still in their right job categories. This is an action instituted to monitor movement which would obviously have been unnecessary if they did not have the restrictions of job categories.

Possibly due to the above reasons no clear association between the rotation policy followed by a company and its labour productivity could be found in the data.

(iv) Absenteeism was probably one of the most serious labour problems that production managers and supervisors had to contend with. This became evident not only in the emphasis given to it by those interviewed but also in the extensive planning, programmes and costs that were involved in counteracting its effects. (This is essentially due to the nature of production, for example, an assembly-line situation.) To a greater or lesser degree all the companies made use of absentee cover (or as it was called in other companies, reliefmen, slipmen, springers and poolmen). Absentee cover involved having more people than were necessary (overstaffing) so as to make provision for absenteeism. These people were usually highly multi-skilled and could therefore be used in a great number of jobs. Naturally a major problem occurred when these operators were absent - however they were usually selected because of good attendance records.

As can be seen in table 6.6., companies A, B and C had significantly lower levels of absentee cover because they firstly had less absenteeism (which is due to a number of reasons) and secondly, because tasks were shared amongst operators. The latter was possible because the operators as seen in 6.2. (iv) and 6.7. (ii) were more multi-skilled and underwent more rotation. Companies D, E and F made extensive use of absentee cover, and company G in fact made provision for maximum absenteeism. These

companies can therefore be said to be overstaffed and it is understandable that their labour productivity is lower than that of companies A, B and C who have less absentee cover. On days when there was less absenteeism these operators were often underutilised, and because of their higher skills and higher pay increased the company's labour costs. However, these companies rationalised that this extra cost was minimal in comparison to losing volume and stopping the line and production because of a few absentees.

Regarding absenteeism, a clear pattern emerged, namely that companies with less absentee cover had higher labour productivity. An association therefore exists between these two variables.

This finding corresponds with Edwardes' interventions at British Leyland (refer chapter 4, p 60) and the recommendations made in Sweden (refer chapter 3, pp 43-44) regarding the importance of rotation so as to cover for absenteeism.

6.8. Adaptability of operators

TABLE 6.7 : The relationship between operator adaptability and labour productivity

	ADAPTABILITY INDICATORS	
COMPANY	OPERATORS	MUST CONSULT
A	very adaptable	no
B	very adaptable	no
C	very adaptable	no
D	very adaptable	(no)
E	very adaptable	(yes)
F	quite adaptable	(yes)
G	(very adaptable)	(yes)

(Note: Brackets indicate that data either needs further qualification, was uncertain or did not reflect the true situation)

(i) Adaptability was classified into five different categories and as can be seen in the above table six of the seven companies said that their operators were very adaptable to unpredictable changes in their workplace. Company F said that their operators were quite adaptable and that this would improve if they had more flexibility. Although company G reported that their operators were very adaptable it is seriously doubted whether this is a true reflection of the situation. The level of adaptability is interdependent on the multi-skill level of operators which was discussed in 6.2. (iv).

However, an association between adaptability of operators and labour productivity could not be found in the data.

This could possibly be ascribed to the fact that some of the companies did not want to admit to less adaptability or it could be that the operators have not been exposed to major changes which would indicate their adaptability.

(ii) On the question whether companies would have to consult with unions regarding changes in technology and the production process (which would affect output and manning levels) a definite pattern appeared. As seen in table 6.7 companies A, B, C and D which had the higher labour productivity said that they would bring about the changes without consulting with the unions. They would not let themselves be dictated to regarding something which they felt was a management prerogative. Company E said that they would not consult with the union regarding small changes such as changes in tools and layout, but would consult if the changes meant reductions in manning levels such as in the case of robots. Company F would normally consult with the union since they saw it as part of their programme of encouraging union and employee participation. In fact this company cannot change the speed of the assembly line without the attendance of a full-time or part-time shop steward. Company G would also consult with the union, since the shop stewards

demand a say in nearly all aspects of production that impact on labour. Companies E, F and G remarked that unions would not reject the incorporation of robots into the workplace, or for that matter any other technological changes such as mechanisation as long as it did not reduce manning levels, or lead to redundancies. Changes were welcomed if it reduced human error, made work physically lighter, improved quality of working life and improved safety conditions.

The data indicates therefore that an association does exist between whether a company consults with unions regarding technological changes and their labour productivity level. Those companies that do not have to consult with unions about technological changes appear to have higher labour productivity and vice versa. Nissan (UK) (refer chapter 4, p 50) makes provision in its agreement with the AEU for no interference from the union regarding changes in technology and it experiences constant improvements in productivity (refer Chapter 4, p 74).

6.9. Restrictive practices, importance of flexibility and resistance expected

TABLE 6.8 : The relationship between restrictive practices, importance of flexibility, resistance expected and labour productivity respectively

	RESTRICTIVE PRACTICES, IMPORTANCE AND RESISTANCE EXPECTED		
COMPANY	NO. OF RESTRICTIVE PRACTICES	IMPORTANCE OF FLEXIBILITY	RESISTANCE EXPECTED FROM
A	> 50	necessity	(supervisors)
B	< 10	necessity	unions
C	> 50	necessity	(supervisors) follow-up monitoring
D	< 10	very	older operators, matriculants, plant layout
E	> 50	very	(management), black foreman
F	(< 10)	very	unions, training facilities
G	(< 10)	very	unions, militants, shop stewards

(Note: Brackets indicate that data either needs further qualification, was uncertain or did not reflect the true situation)

(i) From the table 6.8 it can be seen that no clear pattern regarding the number of restrictive practices and labour productivity could be found in the data. The number of restrictive practices ranged from less than ten (in companies B, D, F and G) to more than 50 (in companies A, C and E). The reason for this could possibly lie in the meaning of restrictive practices not being specified clearly enough, leading to misinterpretations. In some cases the categories and titles were seen as restrictive practices while in other instances only specific practices (such as the changing of the line speed and using black males in upholstery department rather than coloured women) were counted.

(ii) All seven companies emphasised the importance of flexibility in their companies. Companies A, B and C went so far as to say that flexibility was a necessity without which they could not obtain their required production levels. No association however appeared.

(iii) Regarding the implementation of higher levels of flexibility the various companies mentioned a range of problems that could resist this implementation. Three companies (A, C and E) said that they expected most resistance from supervisors, foremen and management mainly because of a fear of the unknown. Furthermore, they would have to encourage and promote the concept and it might lead to additional

monitoring and disciplining which they find difficult. Companies B, F and G expected resistance from shop stewards, unions and militant operators. Company D saw plant layout, the level of education of operators and older operators as presenting the most resistance. Company F felt that lack of sufficient training facilities could also restrict the enhancement of flexibility in their company. **No pattern emerged from the data relating expected resistance and labour productivity.**

6.10 SUMMARY

As can be seen from the summarised matrix and the discussion above there are associations and patterns to be found between certain flexibility indicators and labour productivity.