

South African Automotive Benchmarking Club Newsletter

Vol. 11, No. 6. November-December 2008

Contents

Focus Article: If training is a necessary condition of WCM, is the local auto industry doing enough?1
SAABC Programme – 20097
News from the regions9

The November-December 2008 focus article examines the extent to which the local auto industry is committed to training and skills development. Understanding this is vital as it provides some insight into the industry's ability, as well as its willingness, to change and adjust to an ever challenging and demanding environment.

Initially, the basic education levels of the industry will be considered as well as the extent to which there is an increased commitment to training, as reflected in actual training expenditure levels.

The article will then attempt to ascertain to what extent the major employment categories of management, supervisors and production workers are receiving attention. This will be assessed by unpacking the levels of formal off-line training received by each of these tiers.

The analysis undertaken will consider not only averages but also the upper and lower quartile performance levels. By unpacking the data in this manner a better understanding of the SA auto component industry's training commitment can be obtained.

Besides the focus article, the newsletter will also briefly outline the SAABC programme for 2009, as well as highlight some of the changes.

Finally, "News from the regions" unpacks the SAABC activities over the previous months.

If there are any comments regarding any of the issues highlighted during the newsletter, please email the SAABC Project Co-ordinator, Cleopatra Ndlovu, on saabc@bmanalysts.com.

Focus article...

If training is a necessary condition of WCM, is the local auto industry doing enough?

By Sean Ellis

Introduction

The SAABC newsletters for 2008 focused on several key issues, including unnecessary costs/ waste incurred as a result of the industry's sub-optimal manufacturing operations, customer views of member firms, the effectiveness with which the industry engages with suppliers, as well as the implications of the Automotive Production Development Programme for South African component manufacturers.

While each of the issues covered in the 2008 newsletters are important, it has to be acknowledged that a crucial determining factor in terms of the local auto industry's future success, especially in terms of becoming World Class, is the effectiveness with which it manages and develops its employees.

"Excellence is an art won by training and habituation. We do not act rightly because we have virtue or excellence, but we rather have those because we have acted rightly. We are what we repeatedly do. Excellence, then, is not an act but a habit."

Aristotle (384 BC-322 BC)

Considering this reality (that training is vital), the focus article of this newsletter will briefly unpack the extent to which the local auto component industry has been training and developing its people in recent years. The analysis will be based on data obtained from the firm-level benchmarks undertaken at SAABC member firms in recent years. Ultimately, the article will attempt to answer the important question, **"Is the automotive industry doing enough training and people**

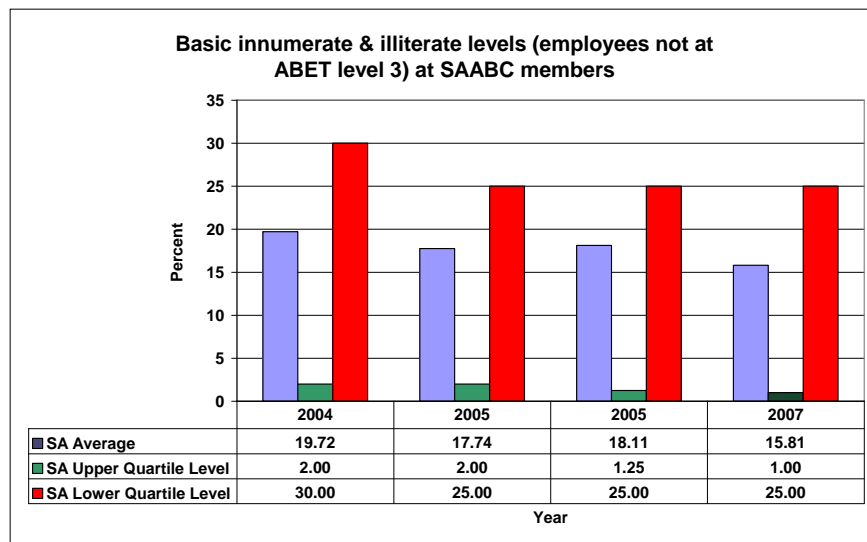
development?" By answering this, one can ascertain the industry's willingness and commitment to change.

The analysis will start by examining the basic education levels of the industry. It will then unpack the extent to which training and skills development is in fact taking place. The development of specific employment categories will also be considered. The article ends with a short summary and conclusion of the major findings that emerge from the article and the potential implications for the local auto industry.

1. Basic Education Levels

In order to justify a need for training at firms (although this should not be necessary); the basic education levels of the local auto component industry are considered. This is undertaken by analyzing the percentage of employees at firms that are at ABET level 3 or higher. This is equivalent to the completion of Grade 4-6 in the SA school system with ABET level 3 viewed as being the minimum level of education required for one to be considered basically numerate and literate.

When reviewing the basic education levels of those SAABC firms benchmarked in recent years, it is encouraging that the average, as well as the upper and lower quartile levels have all displayed an improvement trend. However, the latest average and lower quartile figure of 15.8% and 25.0% respectively highlight that there is still a major need for basic education type training, and thus training in general, at local firms. The latest data suggests that at least 1 in 6 persons employed at the average SA firm, 1 in 4 at the lower quartile firms, are innumerate/ illiterate. This is considerably worse than the similar upper quartile figure of only 1 in 100, revealing a major separation between strong and weak performers in the SAABC.

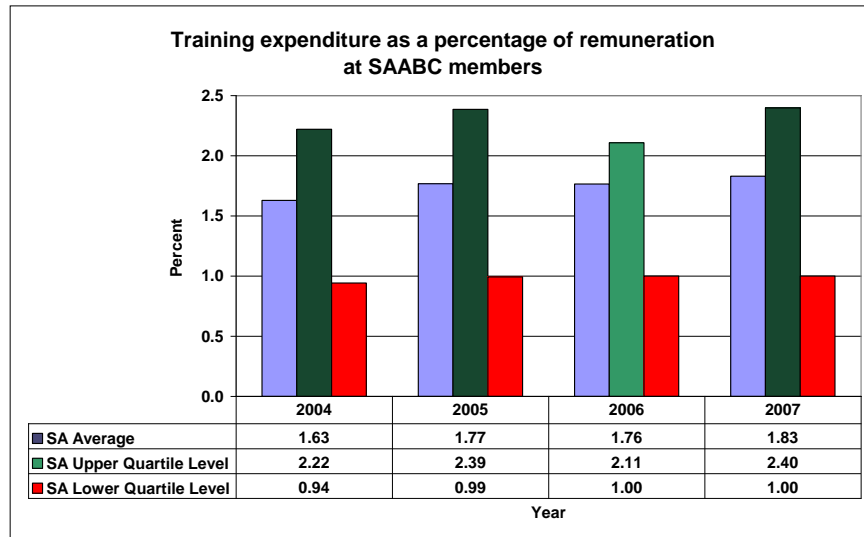


Thus, the SAABC benchmark data

pertaining to those employees not at ABET level 3 or higher highlights that while the local auto component industry has made progress in developing the basic education levels of its employees in recent years, there still remains a major need for the bolstering of this type of training at firms. This is especially the case considering that best practice must be having 100% of employees at a minimum level of education required for one to be considered basically numerate and literate.

2. Training Expenditure

To evaluate whether training and skills development is occurring at SAABC members, training expenditure as a percentage of remuneration needs to be analyzed. The SAABC benchmark highlights that the average has improved from 1.6% in 2004 to 1.8% in 2007. For the upper quartile firm figure, level has remained above 2.1%, reaching 2.4% in 2005 and 2007. The lower quartile firm figure is however a major concern. It has remained at around 1% for the entire period analyzed and not displayed any real improvement change.

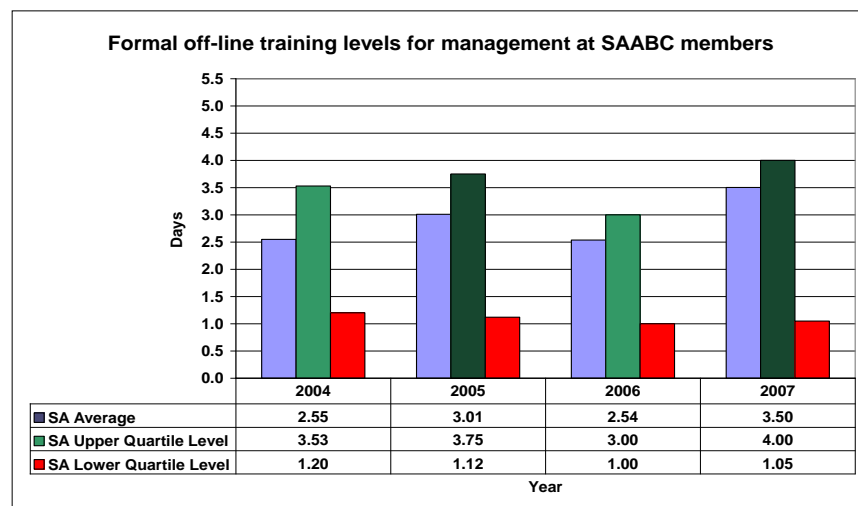


to
data
in
the

As reflected in the data, while there have been definite improvements both at an average and upper quartile level, there are still a large number of local auto component firms that are allocating very limited amounts to training and skills development. The industry thus needs to allocate additional resources to training and, although identifying best practice in this area is complex, it is worth noting that the international average obtained from the SAABC database is 2.8%, which is significantly higher than the SA upper quartile level. However, the top 10% of SA firms benchmarked spend between 3.0% and 6.5% on training, highlighting that 'strong' performance in this area can and does exist locally, with these levels similar to the figure of 4% which is often viewed as being best practice.

3. Formal Off-line Training

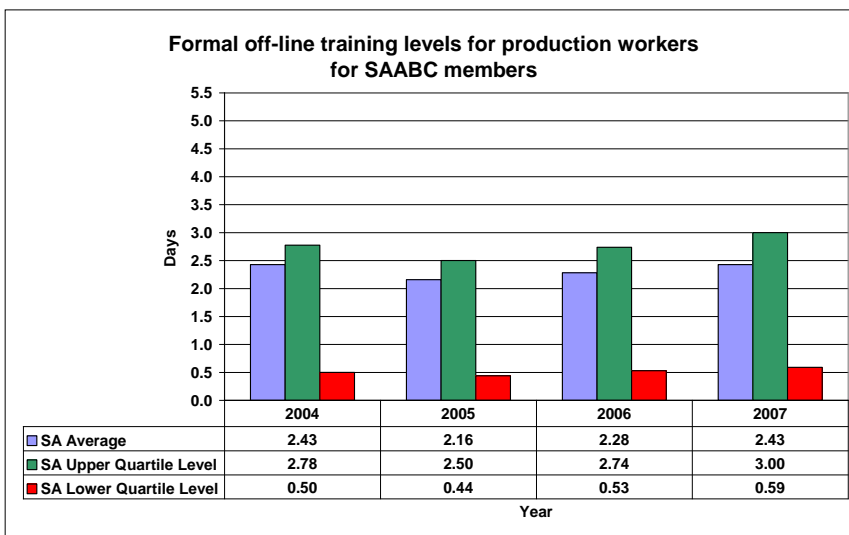
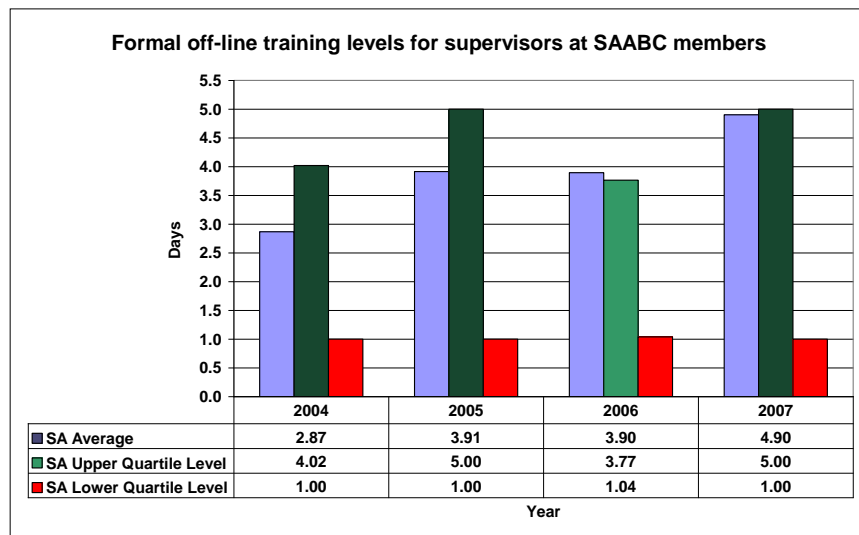
While the analysis of training expenditure levels is important, it simply suggests whether firms are spending efficiently on training. It fails to provide any insight into what categories of employee are being trained (or more importantly not being trained). Unpacking formal off-line training, measured in days per



employee, is therefore an important measure. For this analysis the levels of training offered to the three major employment categories at firms, namely, management, supervisors and production workers, will be examined.

Formal off-line training for management improved to an average of 3.5 days in 2007. This figure is notable higher than the levels for 2004, 2005 and 2006, at 2.6 days, 3.0 days and 2.5 days respectively. When reviewing the upper quartile firm figures we see that levels have remained above 3.5 days with the exception of 2006 when it dropped to only 3 days. The data for the lower quartile firms is interesting in that it suggests that managers employed at these firms received less formal training in 2006 and 2007 in comparison to 2004 and 2005. The lower quartile figures are thus in contrast to the average and upper quartile positive performance trend.

For supervisors, the data reveals major changes at an aggregated level. The figure has improved from 2.9 days in 2004 to 3.9 days in 2007. It is also interesting to note that the average and upper quartile levels for 2006 and 2007 are very similar, suggesting that a majority of the firms that are benchmarked are focusing attention on developing this key lower level 'management' tier. However, once again we see that a group of firms are doing very little, as is reflected in the consistent lower quartile firm figure of only 1 day for the 2004-2007 period.



For the crucially important production worker category we find that there has been no real improvement in the provision of formal off-line training, with the 2004 and 2007 averages both 2.4 days, and the 2005 and 2006 figures 2.2 days and 2.3 days respectively. Besides the lack of improvement at an aggregated level for this category, which is in contrast to the management and supervisor data, an

additional concern that emerges pertains to the generally limited amount of training that

production workers are receiving. The actual amount of training obtained by each production worker is far lower than that received by the other two categories analyzed. This is reflected in the upper and lower quartile figures, as well as in the averages. This must be viewed as a major concern, especially as production workers are the only employees at firms that add real value to the product being manufactured, hence the importance attributed to production workers in the lean production literature. If this employee base is not empowered, World Class operational performance is impossible.

It is argued that best practice for formal training is 5 days. An analysis of the SAABC database reveals that, for management, close to 20% of local firms are at this level, with the figure close to 25% when considering supervisors. However, when it comes to production workers, only around 8% of firms are providing this category with this amount of training.

Thus, the formal off-line training data highlights that while there is, on average, more training occurring for management and supervisors, this is not the case for production workers. The data further confirms that overall training levels remain low for a large proportion of firms, with this reflected in the lower quartile performance figures.

Conclusion

The brief analysis contained in this article of the training data for SAABC firms benchmarked in recent years reveals the following:

- Basic education levels are improving, although a large proportion of employees would still be considered innumerate and illiterate
- At an aggregated level the local auto component industry is focusing increased attention on training and skills development, as suggested by the increased levels of training expenditure
- Management and especially supervisors appear to be benefiting the most from the increased training focus by the industry
- The general level of development for production workers still appears to be far from ideal (also supported by the basic education figures)
- Despite the progress noted, there are a large percentage of firms that appear to be doing very little (if anything at all) in terms of people development. They are thus negatively skewing the overall performance of the industry

It is thus clear that, when considering the question posed at the beginning of the article, ***“Is the automotive industry doing enough training and people development?”***, that the answer is mixed. There is an apparent increased focus on training and skills development by local auto component firms, although significantly more commitment is required. This is supported in Table 1 which highlights that a notable difference exists between the average, upper and lower quartile firms. Also, with the exception of the formal training received by management and supervisors, the ‘strongest’ firms in SA, represented by the top 10% performers, would be viewed as being behind what is often considered to be the theoretical best practice level for the indicators analyzed.

Table 1: SAABC operational performance levels of SA firms benchmarked – 2007

	Lower quartile level	Average	Upper quartile level	Top percentile*	Theoretical best practice
Employees not at ABET level 3	25.00%	15.81%	1.00%	0.00%	0.00%
Training expenditure	1.00%	1.83%	2.40%	3.02%	4.0%
Formal training – Management	1.0 days	3.5 days	4.0 days	7.5 days	5.0 days
Formal training – Supervisors	1.0 days	4.9 days	5.0 days	10.0 days	5.0 days
Formal training – Production Workers	0.6 days	2.4 days	3.0 days	4.4 days	5.0 days

* Performance levels of top 10% of firms benchmarked

The article has thus shown that there exists an apparent willingness and commitment to change by the industry, and thus to becoming lean and achieving World Class Manufacturing levels. However, this is not evident at all levels with significantly more focus and attention required by the industry as a whole going forward. A failure to bolster and develop training, especially given the current environment, will place firms at a significant disadvantage going forward to deal with both current as well as future challenges that arise.

“Through real training, you’ll be able to discover dozens of problems and also get to their root causes. You’ll be able to make dozens of improvements. If you incorporate all the accumulated knowledge of root causes that you’ve got from always asking ‘Why? Why? Why? ...’ into your equipment, you’re going to have something that no one else can come close to. I don’t think it’s got anything to do with nationality; it all has to do with whether or not you’ve received the proper training. I feel though that the tendency to give that kind of training and education forms the basis of Toyota’s approach to monozukuri¹.”

Extract from speech made by Teruyuki Minoura, Toyota’s managing director of global purchasing at the time (June 18, 2003) at the 2003 Automotive Parts System Solution Fair held in Tokyo.

¹ The art of making things – is a term often used within Toyota with reverence to emphasize this is the backbone of the company

SAABC Programme Overview – 2009

In 2009 the SAABC will continue to focus increased attention on ensuring that it meets its objective, which is having a highly effective programme in place that supports all member firms to prosper and succeed through the adoption of lean and World Class Manufacturing. This will be achieved via the various SAABC activities, with the 2009 programme, including any changes, to be briefly outlined below.

Firm-Level Benchmark Exercise

The benchmark service remains a core element and fundamental component of the SAABC programme. This activity entails members receiving an annual firm-level exercise that is focused on benchmarking their operational performance against the performance of the local, international and sub-sector firms, as well as versus competing supplier performance for international members. Ultimately, the benchmark analyses the extent to which the firm is performing in relation to best-practice and is intended to assist management in terms of identifying those areas of the firm that need to be focused on to achieve World Class Manufacturing levels. The benchmark methodology utilized continues to follow the Market Driver approach, with six areas analyzed in this regard. The Market Drivers, as well as the relevant operational performance measures for each, are outlined below in Table 2.

Table 2: SAABC Market Drivers and associated operational performance measures

Market Driver	Operational Performance Measures	
1. Cost Control	<ul style="list-style-type: none"> Total inventory holding Finished goods inventory holding 	<ul style="list-style-type: none"> Work in progress inventory holding Raw materials inventory holding
2. Quality	<ul style="list-style-type: none"> Customer return rates Internal reject rate Internal rework rate 	<ul style="list-style-type: none"> Internal scrap rate Return rates to suppliers
3. Value Chain Flexibility	<ul style="list-style-type: none"> Customer lead times (ex-finished goods & ex-production) Delivery frequency to customers Manufacturing throughput & process times Machine changeover times analysis 	<ul style="list-style-type: none"> Production time lost to machine/tool changeovers Bottleneck capacity utilization rates Lead time performance of suppliers Delivery frequency from suppliers
4. Value Chain Reliability	<ul style="list-style-type: none"> Delivery reliability to customers Production time lost to machine/tooling breakdowns Production time lost to materials unavailability Production time lost to people unavailability 	<ul style="list-style-type: none"> Production time lost to quality problems Maintenance profile Age of capital equipment Delivery reliability from suppliers
5. Human Resource Development (Capacity to change)	<ul style="list-style-type: none"> Literacy & numeracy level Employee development/training Suggestion schemes Accident frequency rates Labour unrest downtime 	<ul style="list-style-type: none"> Employee turnover levels Absenteeism rates Employee output HIV/AIDS interventions
6. Product Development	<ul style="list-style-type: none"> R&D expenditure & source of R&D Industrialisation lead times 	<ul style="list-style-type: none"> Contribution of new products to total sales Life Cycle profile of product range

For 2009, while the overall benchmark methodology and philosophy will remain intact, the benchmark exercise is being altered to ensure that there is improved alignment between the various aspects of the process. To achieve this, the process benchmark to be undertaken at each member firm in 2009 will be far more intensive, with the firm-level presentation/feedback session to management to occur directly after the process benchmark has been finalised. Important, the successful completion of each firm's benchmark exercise, and thus maximising the benefit attained, is dependent on ensuring the effective completion of all relevant benchmark documentation.

Strategic Management Workshop

A key component of the SAABC programme has been the annual executive workshops that take place at the beginning of each year for each Chapter. These will be repeated in 2009 with an additional element being introduced at the workshops. Besides the initial session that unpacks the local auto component industry's current position, a portion of the workshop will be focused on the **Automotive Production Development Programme (APDP)** – the programme that will replace the Motor Industry Development Programme (MIDP) in 2013. Dr. Justin Barnes, one of the architects of the APDP, will be in attendance and he will facilitate the aspects of the workshop dealing with the APDP. All member firms, and especially senior management and executives, are encouraged to confirm their attendance when the invites are sent out during February 2009. The provisionally dates for each Chapter workshop are presented in Club News below.

WCM Programme

A major success in 2008 was the World Class Manufacturing (WCM) Best Practice Programme (see Club News). The programme entailed three day-long workshops being held for each Chapter during the course of the year, focusing on JIT, TQM and CI respectively. Several member firms hosted the workshops.

There has been unanimous support to repeat the programme in 2009, although with a far more practical focus. In terms of achieving this and thus ensuring that the bar is raised, the general format of the programme will remain intact, although there will be an increased focus on the shop floor assessment and subsequent review of the practices and tools in place at the host firm. The revised WCM programme for 2009 should ensure that there is enhanced benefit, both for those attending as well as for the host firm. Invites to the various workshops will be sent out during the course of 2009.

Newsletters

The newsletters, that have been compiled and distributed to member firms since the inception of the Benchmarking Club at the beginning of 1998, will continue to explore the latest industry trends and key findings that emanate from the SAABC database, and the strategic impact of these on the local auto industry.

Benchmark Focus Group

In order to facilitate and encourage real change at member firms, especially on the factory floor, a Benchmark Focus Group (BFG) programme is being launched in 2009. The BFGs will be focused initiatives that grapple with key shop floor challenges affecting firms located in particular locations (i.e. Durban). Each BFG that is established will follow a business plan that will be compiled by the participants.

Network secretariat function

The secretariat function has been in place since the benchmark programme was initiated. It facilitates continual engagement amongst industry representatives around key competitiveness issues. As a result of the increased interest from member firms to engage with peers, especially during 2008, this aspect of the SAABC will be formalized and bolstered in 2009 to ensure that an increased level of beneficial networking takes place amongst member firms.

Summary

As has been outlined, there will be some changes to and refinement of the SAABC programme in 2009. However, it retains its operational firm-level benchmark core, which is crucial, with a bolstering of the necessary supporting clustering activities.

The changes are expected to reinforce and intensify the programme and ensure that an increased level of benefit is attained by members without additional costs being incurred. In this regard all member firms are hereby notified that **there will be no increase in SAABC membership fees for 2009**, as was the case in 2008. However, while the SAABC is anticipated to offer real benefits to the industry, active participation and commitment to the programme by members is vital in ultimately achieving this objective.

News from the regions...

The Past

- As expected, the last two months of 2008 proved to be an extremely busy period for the SAABC. A substantial number of **process benchmarks** were completed with a notable number of **benchmark reports** compiled for member firms. Only two benchmark **presentations/feedback sessions** occurred with several firms requesting that they receive theirs at the start of 2009.
- The final **World Class Manufacturing** workshop, dealing with **Continuous Improvement (CI)**, was held in November in the Western Cape at **International Trimmings & Labels (ITL)**. They are a non-auto firm that is a member of the Cape Clothing and Textiles Cluster (CCTC). A very special '**Thank You**' is extended to them for hosting the workshop on behalf of the SAABC.
- As mentioned, the WCM programme proved to be a success. This is reflected in just over 300 persons attending the 15 workshops as well as in the workshop assessments completed by attendees. This is briefly summarised in Table 3 below.

Table 3: SAABC WCM Workshop Programme assessment and attendance summary – 2008

Areas assessed	Workshop			Average
	JIT	TQM	CI	
Presentation skills	90.87%	89.18%	91.20%	90.42%
Quality & layout of presentation and/or handout material	87.40%	88.58%	89.32%	88.43%
Content of the training /workshop material	85.90%	87.47%	87.88%	87.08%
Validity	90.41%	89.80%	90.60%	90.27%
Benefit of workshop	88.94%	89.24%	90.76%	89.65%
No. of attendees	90	110	108	20.5

- While each of the firms that hosted a WCM programme workshop in 2008 as well as the firm representatives that assisted have been formally thanked, I would like to take this opportunity to again extend, on behalf of the SAABC, our appreciation to each of these firms for their assistance in making the exercise a success. The complete list of the WCM programme host firms for 2008 is provided in Table 4.

Table 4: SAABC WCM Workshop Programme host firms – 2008

KwaZulu-Natal	Port Elizabeth	Gauteng
<ul style="list-style-type: none"> • Feltex Automotive Trim • Pi Shurlok • Ramsay Engineering 	<ul style="list-style-type: none"> • Faurecia Interior Systems • Bel-Essex Engineering • Dorbyl Auto System 	<ul style="list-style-type: none"> • Inergy Automotive • ZF Lemforder • Shatterprufe GaRankuwa
East London	Western Cape	
<ul style="list-style-type: none"> • Faurecia Interior Systems • Feltex Automotive Trim • Mercedes-Benz SA 	<ul style="list-style-type: none"> • EMCON Technologies • Senior Automotive • International Trimmings & Labels 	

- Besides the firm-level benchmark activities and finalising the WCM programme, Douglas Comrie and Sean Ellis travelled overseas at the end of November. Douglas travelled to the UK and US while Sean went to Thailand. Several auto component firms were visited and, once again, a special ‘**Thank You**’ is extended to all those SAABC member firms that assisted in scheduling visits to their sister plants.
- In addition to the firm visits, a number of successful benchmark meetings were held with various organisations in all three countries.
- Both trips were very successful, despite Sean being stranded in Bangkok for a few extra days due to the airports being occupied by protesters.

The Present & the Future:

- While 2009 is expected to be a challenging year, the SAABC also expects that there will be opportunities for those firms that are committed to change. It is the SAABC’s objective to assist members to achieve this, with the 2009 programme, as outlined above, anticipated to facilitate this process.
- Considering this, a large part of January and February will be spent on arranging the year’s activities. This includes the firm-level activities, Strategic Management workshops as well as the WCM programme.
- The dates for the Strategic Management workshops are indicated in Table 5. As mentioned, the invites will be sent out during February once the venues for each workshop have been finalised. All senior managers and executives are requested to diarise the dates and ensure that their firm is represented.

Table 5: SAABC Overview & APDP Session Workshop dates

Chapter	Date	Chapter	Date
Port Elizabeth	5 th March 2009	KwaZulu-Natal	24 th March 2009
Gauteng	11 th March 2009	Western Cape	31 st March 2009
East London	19 th March 2009		

- There BFG programme will also receive attention in January and February. SAABC benchmark data will be analyzed by locality (i.e. Port Elizabeth) to ascertain the specific areas that need to be focused on. The results will be compiled and presented to members at the Strategic Management workshops.
- In terms of initiating the WCM programme, several firms will be contacted to host one of the workshops. If any firm does wish to host one, focusing either on JIT, TQM or CI, please do contact us shortly.
- Lastly, the annual SAABC EXCO meeting has been scheduled to take place on the 12th February 2009 at B&M Analysts' offices in KwaZulu-Natal. Each of the Chapter Chairs and/or representatives has already been contacted regarding the meeting. The EXCO meeting will deal with the key strategic and operational issues pertaining to the programme. Member firms will be informed of any major developments and outcomes that emerge during the meeting.
- For more information on any of the SAABC activities outlined in "**News from the regions...**", please contact the Project Co-ordinator, Cleopatra Ndlovu, telephonically (+27 31 765 3870) or via email (saabc@bmanalysts.com)