Affordable Private Schools (APS) Sector Analysis Report – 2012

Prepared by: Gray Matters Capital

Background

Gray Matters Capital (GMC), the philanthropic foundation of Gray Ghost Ventures, co-creates initiatives and uses philanthropic capital to cultivate social ventures that provide transformative solutions for low-income communities in developing countries.

GMC believes that access to quality education provides new opportunities and significantly improves lives. Many countries are facing severe problems with their government-run education system due to limited resources and multiple layers of bureaucracy. As a result, privately owned schools for low-income families have been started by education entrepreneurs. These schools are social enterprises that emphasize on quality and efficiency, justifying the modest tuition fees that they charge making them a sustainable market-based solution. Since families are paying clients with rights to insist on quality, they generate market demand and drive intense competition through school selection. Parents in underserved communities have recognized that APS is extending the field of opportunity to their children, which we think is fuelling an education revolution across the globe.

While these schools are sustainable enterprises with a potential to provide affordable & good quality education, there is still much to be desired as far as the learning outcomes in these schools are concerned. But it is encouraging to note that the APS owners are progressive entrepreneurs who readily accept their shortcomings and are willing to try new solutions to improve learning outcome. For example, most of the APS have started blending learning techniques using phonics, digital class rooms, games, handhelds and other learning aids.

Our Approach

Our strategic focus in India is to increase access to affordable, quality education for low-income families through our work with Affordable Private Schools (APS). Our program in India includes School Ratings and School Improvement Solutions for the APS segment. Through our school rating system we intend to demonstrate that in this unique market we can create social value that will increase school and sector performance by increasing sector transparency, stimulating market growth, and ultimately attracting more resources to this sector.

GMC's APS school rating initiative is a large scale research effort to understand the barriers of secondary education and gaps in student learning outcomes. This research would allow us to establish the key "Levers of Change" that would improve the student learning outcome in the APS sector and make APS sustainable. Through the school ratings program, our endeavor is also to empower the parents and the community at large by giving them access to information so that market demand can drive quality improvement in this sector.

The APS Sector Analysis Report is intended to enable transparency and provide data based insights to APS stakeholders. We hope the solution providers can appreciate the opportunities in APS and invest in designing solutions to increase APS sector performance.

SCHOOL RATING TOOL

The School Ratings Program is a comprehensive 360 degree assessment of a school. Post assessment, we provide a detailed School Assessment Report to the school leader and we share school ratings with the parents in the form of School Report Card (SRC). The assessment report helps the school leader understand the gaps in performance whereas the SRC helps parents monitor the school performance. The school assessment covers six different modules namely, student learning outcome, parent satisfaction, teacher competency, school management, school infrastructure & financial performance.

- **Student Learning Outcome**: A standardized test is administered to the students of classes 3, 5, 7 & 9 in English & Maths. These test papers are designed by "Indus Learning Solutions" specifically for APS schools. These papers are designed in a manner in which each paper has questions from the current grade and lower grades.
- **Parent Satisfaction:** In this module the focus is to understand the parent satisfaction level on various parameters related to academics, teaching quality, discipline, fees, and school management. The survey also captures satisfaction with frequency and quality of parent engagement. A guided survey is administered to the parents to measure their satisfaction with the school on various parameters.
- **Teaching Quality**: Randomly selected classrooms are observed to evaluate the teaching methodology in the school. The observations recorded are based on the standardized rubric designed by The Teacher Foundation to rate teaching methodology adopted by the teachers in the classroom. Teachers are also tested on their subject knowledge in English and Maths. Other parameters related to teaching such as teacher qualification, experience, training etc. are also captured in this module.
- **Financial Performance:** In this module, financial sustainability of the APS is assessed. Analysts build an estimated profit and loss statement for the school to understand surplus margin, cost drivers and sources of revenue. This module also looks at class segment wise financial performance. The analysts gather financial information by interviewing the school leader and by verifying school records.
- **School Infrastructure:** In this module, the analysts carry out an infrastructure audit in the school and list all the basic amenities and learning infrastructure available in the school. The analysts check if the learning facilities like digital classrooms, labs, computer labs etc are being used effectively for learning.
- **School Management:** This module focuses on school management processes. It identifies the strengths & areas of improvement across three parameters - student development, teacher management and growth strategy.

This sector analysis report is based on data collected by GMC for over 200 APS in Hyderabad, Delhi and Bangalore in the academic year 2011-12. The findings presented here are primarily derived from analysis of the data collected as part of school assessment.

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Table of Contents

Table of Figures

Executive Summary

It is now a common knowledge that Affordable Private Schools (APS) exist in most of the developing countries in the world. Several studies[1] conducted in the recent past have identified the existence of low-cost private schools in urban and rural areas across countries such as India, Pakistan, Bangladesh, Nigeria, Ghana, Kenya, Dominican Republic, South Africa, China and other countries. These schools are independently owned and operated by local entrepreneurs to serve a large population of the working poor and lower income families by charging lower fees. APS has a potential to provide access to good quality education to the low income communities across the world.

Much has been written and published regarding the profile of APS in many countries. The argument has always been whether the schools in the APS sector perform better than or not when compared to public schools. To take this dialogue forward, in this report we have tried to put forth a more realistic stance by recognizing that there are both good as well as poor performing schools in the APS sector. About 50% of the schools in the APS sector are delivering acceptable quality education to low income communities. Yet, there is the other half which performs below expectation. Often, such poor performing schools create an unfavorable impression for the whole APS sector. The objective of this report is to highlight this difference and bring forward the fact that all the APS schools do not perform uniformly. It is crucial that the APS ecosystem differentiates between the two and provides support accordingly. Schools that are not performing well need more targeted support and handholding from the APS ecosystem. While progressive APS needs solutions, products and services which can help them improve further. This is where an outcome based rating and accreditation model will help monitoring performance of such schools.

In the *first section - Balancing Act: Low Fees vs. High Performance*, the report looks at the fine balance that the APS tries to strike between education quality and fees charged. In our analysis we found that a strong correlation exists between the fees that APS charge and the student learning outcome. Because of this relationship, it appears that below a certain threshold of fees, APS might find it difficult to perform well. From the sample of 200 APS, it is observed that none of the schools charging below INR400 per month (USD 8) are able to perform well. They either lack basic facilities and resources required to create conducive learning environment or are financially unsustainable. However, this does not imply that if one increases fees beyond this threshold, the performance would automatically improve

[1] *Consumers of Affordable Private School* - a report published by Policy Innovation and Gray Matters Capital

Private Schools for the Poor: A case study from India – a report published by James Tooley and Pauline Dixon

Private Schools for the Poor – Development, Provision, Choice in India - a report published by Ross Baird, Gray Matters Capital

Low Cost Private Sector Education in Lagos – a report published by DFID, Nigeria

further. This is where other factors such as pedagogy, teacher competency, curriculum, and management competency come into play.

In the *second section - Top 20 vs. Bottom 20 APS*, we have compared top 20 APS with bottom 20 APS to understand what is driving this difference. We found out that the teaching quality is the key differentiating factor. The other contributing factors are management competency, parent engagement practices, availability of financial surplus and of learning infrastructure like library, computer lab, digital class room, science lab and activity tools.

Success of APS schools has motivated many APS leaders to start more than one school. One third of the schools in this sector belong to a school chain that has at least two schools under the same brand name. These school leaders are progressive and are eager to replicate the success of their first school. In the *third section - Chain Schools – Are APS ready?*, such chain schools are studied in further detail. It appears that, not all the schools in a chain are able to perform as well as their first school. School management is the key to its success. Chain schools with a professional management team have performed much better than family run or individual run schools.

The success of the APS sector and increasing opportunities in it has resulted in rising competition in the APS sector. There are about two to five new schools starting every year in growing communities. Larger chain schools (called as corporate schools) that were primarily focused on the lower middle-income market (fee range of >INR1500 (USD 30)) are now attracting the relatively affluent APS parents (Example: Gowtham Model Schools, Sri Chaitanya Schools and Narayana Concept Schools etc. in Hyderabad). In the *fourth section - Rising Competition in the APS Sector*, we have presented a summary of the changing competitive landscape based on our survey of school leaders and parents.

The growth and success of APS provides lot of opportunities for solution providers, investors and donors. In the *last section - Conclusion: Opportunities in the APS Sector*, we have summarized some of these opportunities like technology enabled learning solutions, innovative teacher training programs, school infrastructure leasing, school management/advisory services, school accreditation, leadership mentoring and access to resources.

In the appendix, this report presents some of the performance indicators of the APS sector such as student learning outcome, teaching quality, financial performance, enrollment, fees and facilities based on the assessment data. The aim is to provide basic facts and figures on the APS sector to help improve understanding of these schools by sharing most up-to-date data with all the stakeholders.

We sincerely hope that the insights presented in this report will help you better understand the opportunities and challenges presented by APS sector, thereby enabling better flow of resources and solutions to these schools.

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SECTION 1

BALANCING ACT - LOW FEES VS. HIGH PERFORMANCE

Balancing Act: Low Fees vs. High Performance

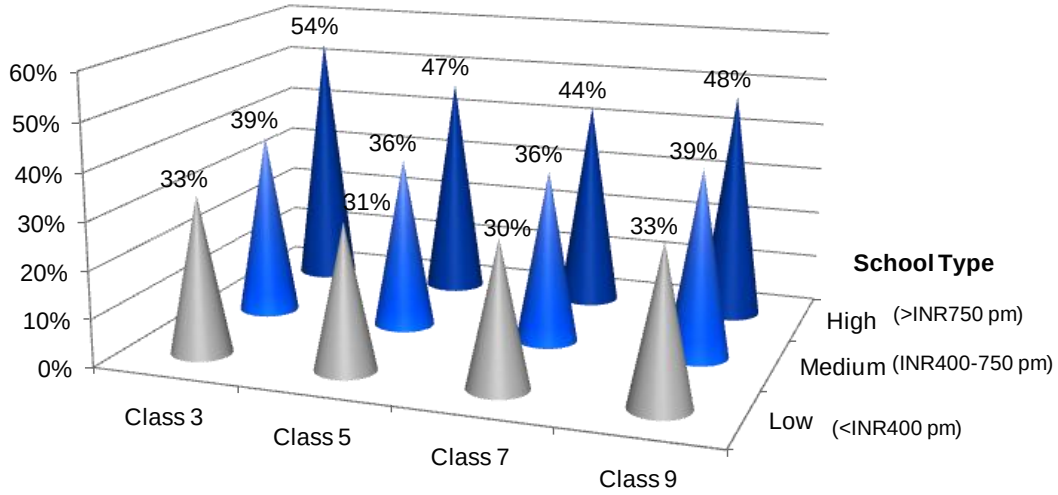
Affordable Private Schools (APS) have spread far and wide because of the growing importance of education in low income communities in India. Parents believe that good education leads to better employment opportunities. These parents, despite their limited disposable income, choose fee charging APS with a hope that their kids get better education in these private schools. The market acceptability of APS depends on the fine balance between affordability and quality of education.

Based on assessment data for 200 schools within APS we tried to analyze the correlation between fee and learning outcome to check if such a threshold or a balancing point exists. In our analysis we observed a correlation between the school fees and the learning outcome. In most cases schools charging higher fees within the APS sector are producing better learning outcome compared to the schools that are charging lower fee. The Figure 1 below displays the variation in average performance of students in GMC standardized tests based on the fee charged[2]. However, the key question for us is to identify what is that low fee threshold that still allows a school to produce acceptable performance from its students.

Performance of students in schools charging higher fees is better than students from low fee schools

Clearly, students from schools charging higher or medium fees within the APS sector have performed better than the students from low fee schools. This could be attributed to multiple factors (quality of teachers, facilities, technology, teaching/learning aids etc.) differentiating a school with more resources from the school with lesser resources.

Figure 1: Student performance by school type (based on fees)

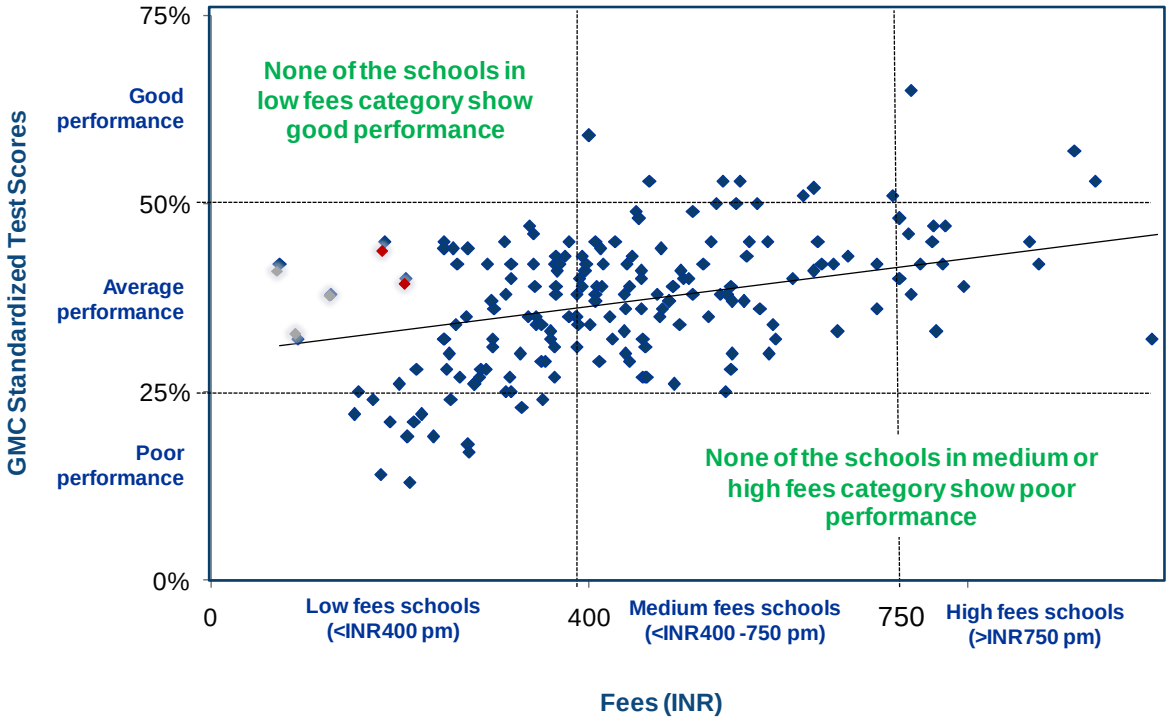


Notes: 1. Sample size Low fees – 102 APS, Medium Fees – 72 APS, High Fees – 26 APS. 2. The scores are average of marks in English and Maths. 3. Average scores of students for schools charging: Low fees (<INR400 pm (USD 8): 32% | Medium fees (INR400-750 pm (USD 8 -15)): 38% | High fees (>INR750 pm (USD 15)): 48%

[2] Fees is calculated as an average of total tuition fees, term fees and other recurring fees charged by the APS across different classes

The figure below plots the average performance of students (average of all students from Class 3, 5, 7 and 9 in English and Maths) on the Y axis and average monthly fees (average of monthly tuition, terms and other fees for all the classes) on the X axis.

Figure 2: Scatter Plot of School Fees and Student Performance



From the above figure, it is evident that none of the schools in the low fees category, charging fees of less than INR400 (USD 8), have displayed good performance (> 50% marks). The average score for the students from such schools is just 32%. On the other hand, it is observed that no school in the medium or high fees category (charging fees of over INR400 per month) has displayed poor performance (less than 25% marks).

On the other hand it is noticed that the schools charging total fees of less than INR 235 (USD 4.7) a month have all shown poor performance (< 25% Marks). There are a few exceptions to this. These are schools that are either getting additional funding from foundations and corporate or are making huge losses (> 100%). Either of these school models is not self sustainable in the long term.

GMC assessed schools shows that monthly fees of INR235 is the threshold for low fees, below which schools find it difficult to perform well

It is also interesting to note that a slight increase in fees can be associated with significant increase in learning outcome in low fee schools compared to the increase in medium or high fees schools. Based on the data for our sample schools, it is estimated that an INR 100 (USD 2) increase in fees of low fee schools could lead to an approximate 7% increase in learning outcome. However, same INR 100 (US 2) increase in schools in medium and high fees category could mean only 1% increase in learning outcome. In order to create a basic learning environment, schools need basic resources and

facilities that are non-negotiable such as reasonably competent teachers, blackboards, classrooms, and learning tools. To provide these resources, a school needs to generate enough income to support it. This is possible only above a certain fee threshold level. Whereas beyond this threshold level, the basic infrastructure becomes common across all the schools and the factors that differentiates schools are more qualitative in nature.

The influence of fees on performance is much higher for low fees schools. A change of INR100 in fees could result in up to 7% increase in average marks

It must not be misconstrued that we are proposing schools to charge higher fees in order to achieve better results. We are only advocating schools to maintain a fine balance between fees and quality of outcome. The threshold level establishes the lower limit below which APS might find it difficult to provide basic amenities essential for better schooling. But beyond this threshold, increase in fees does not guarantee significantly better performance as it depends upon many other factors – especially the pedagogy and the curriculum followed in the school, learning facilities available for students, management competency, parent engagement, etc.

The impact of factors other than fees on performance becomes apparent when we analyze the top performing schools (in the GMC standardized tests). All the schools in the top 20 in our list are charging >INR 400 (USD 8) per month. Majority (55%) of the Top 20 schools in our list are schools charging total fees in the range of INR400-750 (USD 8 – 15) per month, while the rest are high fees APS (> INR 750/USD 15 per month). It demonstrates that by charging a moderate fee, it is possible to provide facilities and teaching quality that could nurture good student learning in a sustainable manner. This makes us curious to further understand what is that these schools are doing differently compared to other schools. In the next section we have identified the characteristics of the Top 20 schools and compared it with the Bottom 20 schools based on the assessment carried out by GMC.

SECTION 2

TOP 20 VS BOTTOM 20 APS

Top 20 vs. Bottom 20 APS

It is a known fact that the APS sector has resource limitations such as learning infrastructure, teaching quality, and lack of reinforcement at home. However, it is essential that the schools maintain basic standards and provide minimum acceptable quality of education. It helps fulfill student/parent aspirations and justifies the fee charged by these schools.

In this context, it is important to recognize that within the APS sector some schools are able to perform much better than others. This makes it worth questioning what these schools are doing differently compared to others. In this section we have analyzed the characteristics and key performance indicators of Top 20 schools in comparison with Bottom 20 schools from among the schools that were rated by GMC.

One of the key inputs that affect student learning outcome is the teacher competency. The profile of teachers in Top 20 schools stood out compared to that in Bottom 20 schools. The teachers in Top 20 schools are better qualified compared to those in Bottom 20 schools. Almost all the teachers (92%) in Top 20 schools have at least a graduate degree compared to 60% in Bottom 20 schools. Further only 25% of the teachers in Bottom 20 schools possess training appropriate for teaching such as B.Ed., M.Ed. or TTC compared to 55% in Top 20 schools. The attrition of teachers in Top 20 is also lower at about 14% compared to 35% in Bottom 20 schools.

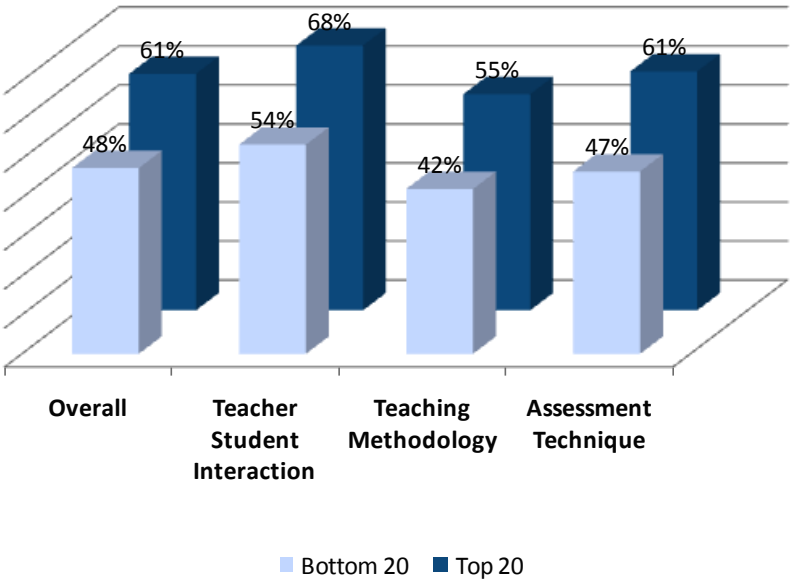
Table 1: Profile of Teachers in Top 20 vs. Bottom 20 Schools

Indicators	Top 20	Bottom 20
Teachers with at least graduate degree	92%	61%
Number of teachers who are trained (B.Ed., M.Ed., TTC)	55%	28%
Attrition of Teachers	14%	35%
Average Teaching Experience	8 years	5 years
Experience in current school	5 years	3 years

Based on the class room observation data compiled by GMC during school assessments we observe a significant difference in pedagogy between Top 20 and Bottom 20 schools[3]. Top 20 schools have performed significantly better than Bottom 20 schools in Teaching Methodology and Teacher Student Interaction (refer to Figure 3). This can be attributed to teacher training, monitoring and management support.

[3] Pedagogy scores for APS are based on performance of teachers on a standardized rubric (designed by The Teacher Foundation) that evaluates teaching methodology on 3 parameters - Teaching Methodology, Teacher Student Interaction and Assessment.

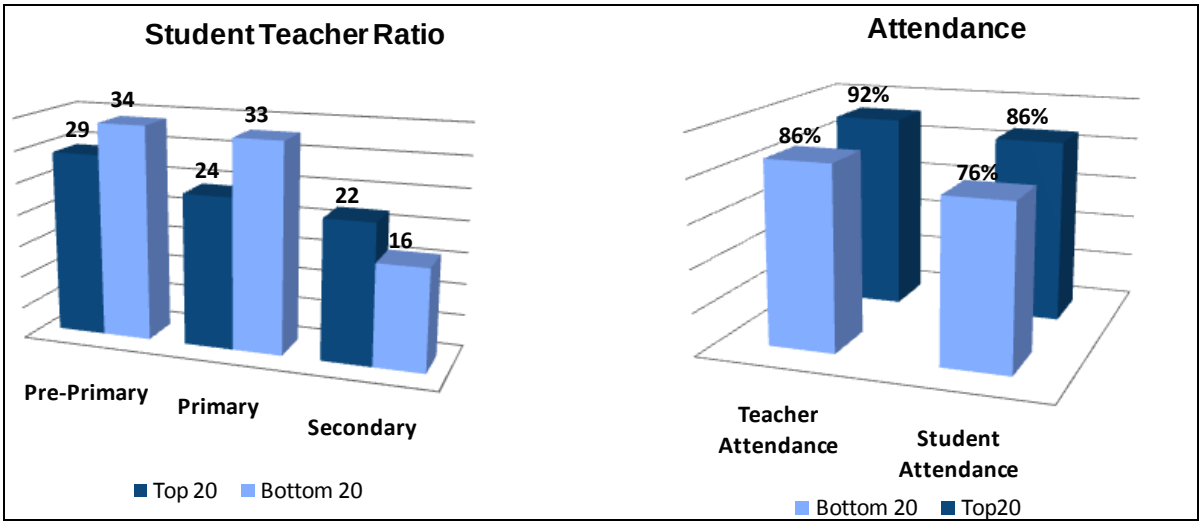
Figure 3: Pedagogy in Top 20 Schools vs. Bottom 20 Schools



The impact of lack of proper training and poor pedagogy is accentuated in Bottom 20 schools as these teachers have to handle many more students per class. The student teacher ratio in Bottom 20 schools is much higher than Top 20 schools (refer to Figure 4). This further limits the ability of teachers in Bottom 20 schools to be effective inside the classroom. The student teacher ratio in secondary classes is higher in Top 20 than in Bottom 20 schools because not many students continue till secondary classes in the same school if the learning outcome is not good.

Basic disciplinary aspect also differentiates Top 20 schools from the Bottom 20 schools. In Top 20 schools, average student attendance is 86% compared to 76% in Bottom 20 schools. Teachers have an attendance of 92% in Top 20 schools compared to 86% in Bottom 20 schools. This reflects on the lack of commitment shown by school management in the Bottom 20 schools (refer to Figure 4).

Figure 4: Student Teacher Ratio and Attendance in Top20 vs. Bottom20



The school leader plays a critical role in the success of the school. We compared the leadership profile and leadership style of Top 20 APS and Bottom 20 APS. We found that the schools that are run by leaders who are qualified teachers themselves or who have at least hired a qualified principal to run the school are among the Top 20 APS. In comparison the Bottom 20 APS have school leaders who don't have prior experience in teaching or academic management.

We found that the school leaders in Top 20 APS have a growth plan for the school that includes enrollment targets, teacher development, technology and other infrastructure investment plans. These school leaders have well-articulated intention to improve learning outcome and parent satisfaction.

A comparison of learning facilities available at the Top 20 and Bottom 20 schools shows a noticeable difference. Majority of the Top 20 schools are equipped with computer labs, techno classes as well as library which are used effectively. Only a few of the Bottom 20 schools have similar facilities. Even if it exists, it is not effectively used for student learning.

Table 2: Learning Infrastructure at Top 20 and Bottom 20 Schools (% of schools)

Learning Infrastructure	Top 20 Schools	Bottom 20 Schools
Computer Lab	95%	60%
Techno Classes	70%	10%
Library	60%	20%
Science Labs	20%	6%

As expected the Top 20 schools are able to generate higher operational surplus and parents are more satisfied with them. Top 20 schools recorded an average operating margin of 26% compared to an average of 5% in Bottom 20 schools. Only half (54%) of the parents are satisfied with the learning outcome in Bottom 20 APS compared to nearly 3/4th (70%) of the parents being satisfied with learning outcome in Top 20 APS (Based on GMC school assessment data). Lack of satisfaction of parents can directly impact the school enrollment as these parents might chose to change the schools. This can also have indirect impact on the new enrollments as the word of mouth feedback spreads fast within the dense social network of communities where APS functions. GMC commissioned research on APS parents in the year 2010 highlighted that around 90% of the parents' base their school choice on the feedback collected from neighborhood parents.

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SECTION 3

CHAIN SCHOOLS - ARE APS READY?

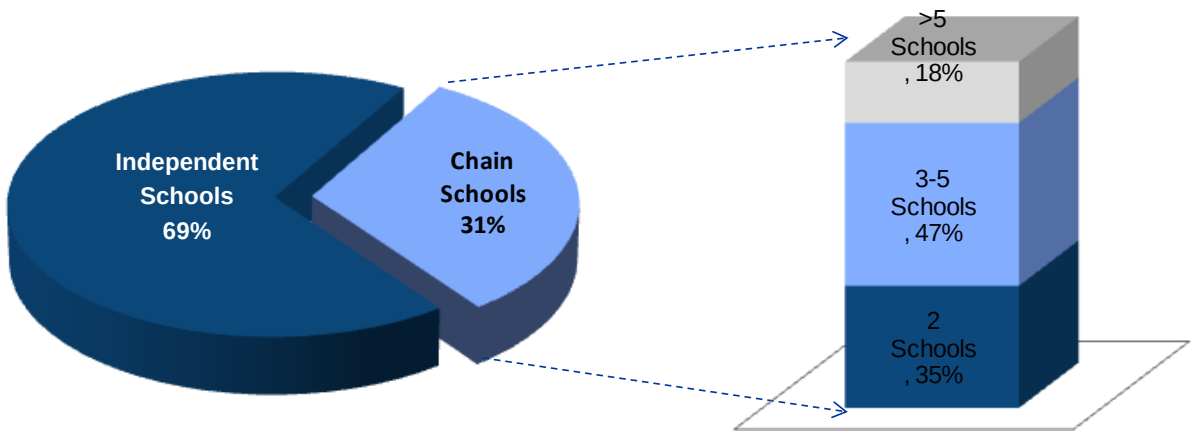
Chain Schools – Are APS ready?

Many APS leaders, buoyed by the success and growth of their schools have started second, third or more schools. These risk taking and entrepreneurial leaders want to take full advantage of the experience gained by running one school and the brand name created in the community by establishing chain schools.

The proportion of such chain APS has become significant. GMC observed huge growth in number of schools coming up with chains. Currently, nearly one third of the GMC assessed APS have at least 2 schools (refer to Figure 5). This is a clear evidence of not just success of APS but also the huge demand for such schools in the low income communities. This also substantiates the risk taking abilities of these APS leaders who have ventured out to meet the rising market demand for quality education.

One third of the GMC assessed APS are chain schools

Figure 5: Chain Schools (based on GMC assessed 200 schools)



Although increase in number of chain schools is a sign of growth for the APS sector, we have analyzed the quality of performance of chain schools compared to others. GMC assessment shows that most of these chain schools are able to leverage their existing experience and on-ground operations by centralizing all the basic functions such as exam paper creation, procurement of goods, teacher rotations, and sharing of resources. However, many of them are yet to learn the tricks of the trade to be able to maintain and deliver good results across all the schools in the chain.

It is observed that majority of the school chains have fared poorly than expected in Gray Matters School Ratings[4]. In most cases (75% of the chain schools), only the main school or the first school, which is where the school owner spends most of his/her time, has performed significantly better than the other schools owned of the chain. This is true not only for the performance on academics but also overall performance based on Gray Matters School Rating.

Performance of these chain schools depends a lot on the ownership and management structure. There are 3 distinct categories of schools based on the ownership structure. For this analysis we included APS with at least 3 schools - refer to Figure 6. The first category of the chain schools is run by a single owner, with chains being managed by school in-charge. The school in-charge is largely responsible for the day-to-day operations of the school without much decision making authority. While the owner runs across different schools frequently to tackle operational issues. The average performance of such schools run by single owner/manager is poor.

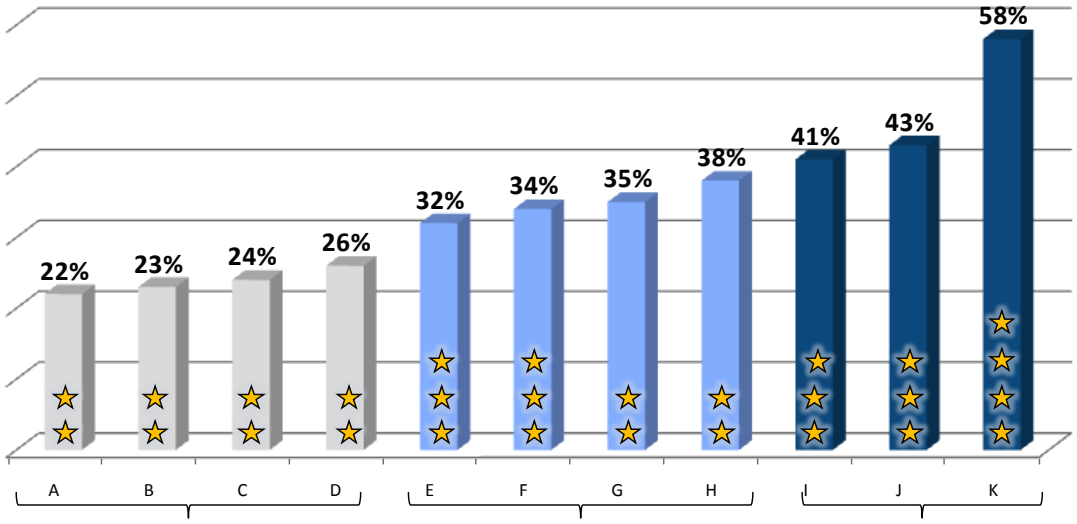
The second category of the chain schools is run by the family members, with each school having a defined owner. This allows better ownership and decision making authority within each school. However, the school chain lacks standardization and hence not able to leverage each other's expertise. The performance of the school becomes dependent on the competency of the owner managing it. The performance of these schools chains suffers as there is no replication of best practices across the chain. Only one or two schools within such school chains have shown average or above average performance while the rest of the schools are not able to replicate the same performance (refer to Figure 6).

> ***However, not many chain APS have been able to perform well due to lack for proper management***

The third category of APS chain schools is run by professional management team. Such chain schools have strong leadership which is able to provide right direction to manage the schools. The management team makes all the strategic decision for growth and school improvement. They have developed strong second line of management that not just manages the day to day operations but also have decision making authority for operational issues. These chains have standardized processes and best practices that are replicated across schools. Such schools are the ones which have shown better performance and obtained better ratings compared to others (refer to Figure 6).

[4] School Rating is based on a score which reflects the performance of the school. It considers 5 basic parameters to rate the school on overall quality of performance – Student test, teaching quality, parent satisfaction, Class 10 result, and facilities. Each of these parameters is scored out of 10 and overall weighted average of these scores provide for school rating.

Figure 6: Performance of Chain Schools – Patterns based on Ownership Structure



Group 1

Lack of second line of management with single owner managing different schools

Group 2

Well defined ownership with different family members managing each school; lack of standardization

Group 3

Professionally managed school chains with proper systems and processes at each branch; strong leadership

The bars in the diagram represent average performance of schools which are part of same chain on standardized tests. The stars in the diagram refer to school rating based on a school score (as explained above). The table below provides a reference for conversion of school score into star rating

School Score	Star Rating
<2	★
>2 and <=4	★★
>4 and <=6	★★★
>6 and <=8	★★★★
>8 and <=10	★★★★★

This is a classic problem faced by many small and medium businesses as they scale. Any expansion of business requires, among other things, trained management, systems and well defined processes to ensure consistent delivery. Not all the school owners have the competency to translate their knowledge of how to run a school into systems and standardized processes. This makes it difficult for them to replicate their success beyond one or two schools. The school leaders do not give enough importance to nurture second line of management and they find it difficult to delegate decision making to others thus spreading themselves thin across multiple schools.

This presents an opportunity for school management companies and advisory companies to help progressive school leaders manage scale and replicate their success. These school leaders need help to improve leadership competencies, streamline operations, inculcate financial discipline and manage and support teachers. The school leaders need academic support to identify gaps, develop a plan and monitor solution implementation.

SECTION 4

RISING COMPETITION IN THE APS SECTOR

Rising Competition in the APS Sector

Given the demand for APS and its success so far the growth and competition among APS is inevitable. If one walks through any dense urban community in Hyderabad or Bangalore, one can witness a large number of APS mushrooming in these communities. To better understand this changing competitive landscape, GMC interviewed 40 APS school leaders. In this section we have presented the summary from these interviews.

It is estimated (based on survey responses) that most of the dense low income communities have nearly 30-40 APS in a 2 kilometer radius. Thus there is intense competition among the APS to attract students from the same pool within the community. With increasing competition, nearly 40% of the surveyed schools reported a decline in enrollments (ranging from 10% to as high as 50%) compared to last year.

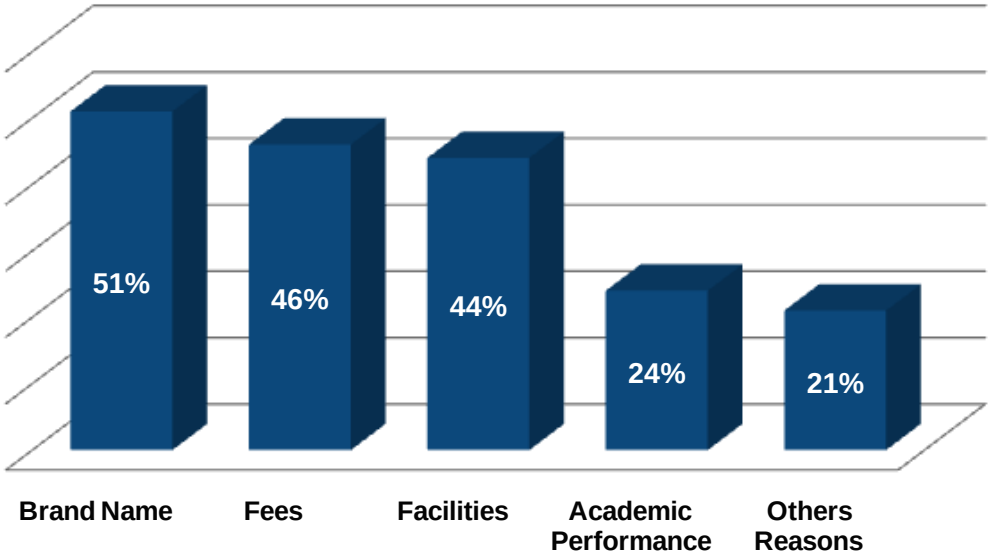
Until recently, the competition faced by APS was primarily from other APS or government run schools. However, the increase in visibility of APS through efforts made by many foundations, NGOs and other social enterprises has attracted many more players into the market. Now a lot of chain schools (called as corporate schools) that were primarily focused on the lower middle-income market (fee range of >INR1500 (USD 30)) have started targeting the APS parents as well (Example: Gowtham Model Schools, Sri Chaitanya Schools, and Narayana Concept Schools, in Hyderabad). The APS schools are losing students in significant numbers to these chain schools especially as the students graduate to the secondary grades.

There is rising competition in the APS sector from corporate school chains such as Gowtham Model and Chaitanya Schools

Most of the school owners express as much fear of competition from such corporate chains as from any other neighborhood APS. According to the school owners, such corporate schools are able to attract some of the parents with better marketing and by showcasing that they have better learning facilities. The brand name of these corporate schools is always desirable for parents who are at the verge of low and medium income levels and are willing to spend a bit extra on education of their children. This year we found that many APS have invested in computer labs and techno classes compared to what we observed in schools last year only to compete with these corporate schools. According to the school leaders the top 3 reasons why parents change a schools are “Better Brand”, “Lower Fee” and “Better Facilities” (refer Figure 7 below). Parents who are looking for better brand name or better facilities usually change to corporate schools whereas parents who want fee reduction change to other APS that offers discount to attract enrollment.

Figure 7: Reasons why parents change schools according to school owners

% of schools with affirmative response - based on school leaders' survey



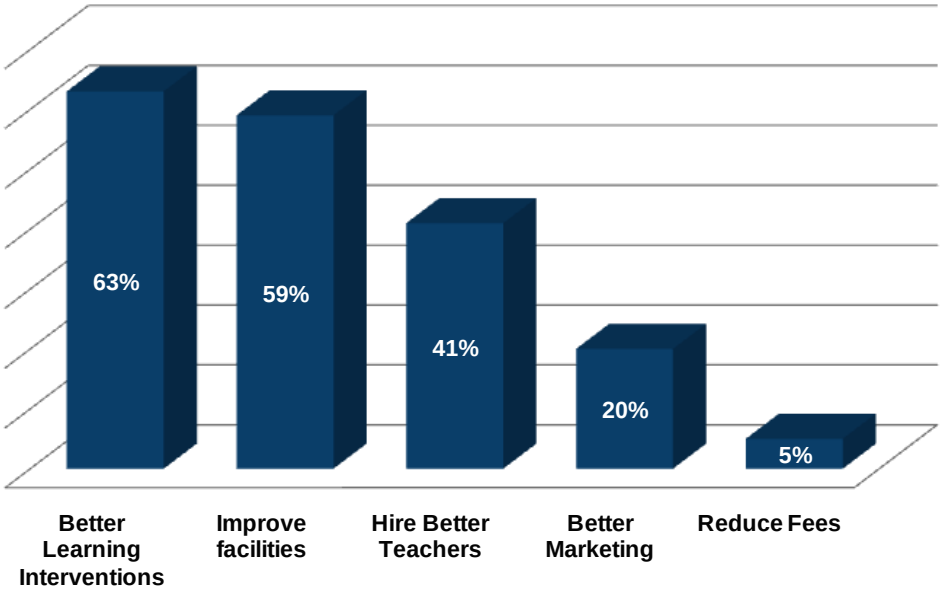
Based on our research, it is observed that APS parents like parents of other sector consider academic outcome and teaching quality as the two most important parameters of school quality. However, due to lack of access to any better information or due to their inability to understand the available information, they use proxies to judge the same. This often results in parents using weak proxies which in most cases are inaccurate. For example, parents assess academic outcome by observing whether they hear loud recitation when they walk past a school, or whether their kid can read posters, or whether the student is disciplined at home. Proxies used by parents to measure teaching quality include teacher's ability to speak good English or ability to instill discipline in kids. Even school infrastructure is used as one of the proxies to measure school academic outcome.

Although parents are trying to use tangible measures to judge a school, the information or proxies they end up using are often inaccurate. This is where an outcome based school rating system and accreditation model plays a crucial role in filling this information gap and empowering the parent community.

Having said that we recognize the fact that competition is healthy for the growth of the APS sector like it is in any other sector. Competition ensures that school leaders are always thinking ahead of the curve. The school leaders are forced to sustain themselves through differentiation, by using innovative means to improve quality and by delivering better results. In fact the rising competition has, in some ways, led to better learning facilities and more competent teachers within the APS space. Today many more APS have computer labs and techno classes compared to schools observed with such facilities last year. There are lots of schools that are blending activity based and technology enabled learning with the conventional approach. The school leaders are increasingly realizing the importance of teacher training and support. Interestingly the top 3 responses to competition by the APS

owners are “to provide better learning interventions”, “to improve learning facilities” and “to hire better teachers” in the same order of priority (refer Figure 8 below). Only 5% of the school leaders said they would reduce the fees in order to stop parents from changing the school, while 63% schools want to invest in improving learning outcomes to retain parents. It is good to see that APS schools are ready to fight competition by not reducing fees but by improving the learning outcomes. The competition has created quality consciousness among the school leaders. This is an illustration of how market forces are driving school improvement.

Figure 8: APS Leaders Response to Competition



SECTION 5

CONCLUDING THOUGHTS

Conclusion: Opportunities in the APS Sector

It has been established that the affordable quality education provided by the APS sector is in demand in the low income communities. With increasing number of parents willing to pay for better education, the APS sector has achieved scale in a sustainable manner. Parents in underserved communities have recognized that APS is extending the field of opportunity to their children, which we think is fuelling an education revolution across the globe.

GMC believes that access to quality education provides new opportunities and significantly improves lives. The phenomenal growth of the APS sector and its presence across many developing countries in large numbers offers significant opportunities – both social as well as commercial. This impact potential keeps investors and donors interested in this sector. GMC Team has been enthralled by the number of requests it has received for information regarding the APS sector from enterprises who are either interested to invest or to develop a solution for this sector. We believe that this is just the beginning and in coming years APS would have its own sector identity and will attract lot of resources into the sector.

It is also apparent that, like in any other sector, not all players (schools) within the APS perform uniformly. This, however, is not a challenge but an opportunity for many solution providers to tap into this growing market. We have identified a few opportunities that are relevant to the APS sector. These are just indicative opportunities and we recommend any enterprise interested in these opportunities to carry out detailed analysis and to develop a feasible business model.

Technology based blended learning solutions

Technology enabled learning tools help the schools in the APS sector ensure that there is consistency in education quality given the fact that there are limitations to teaching quality. Many schools in the APS sector have already invested in technology based interventions but derive little or no benefit from this investment. Lack of well qualified teachers, lack of integration with the existing lesson plan and insufficient supporting resources in the APS limits its usage. Instead these schools require technology solutions that are specifically designed for this sector and can be blended well with the regular classroom teaching. The need of the hour is simple, easy to use learning aids that can be integrated with the lesson plan. Technological platforms that are self-explanatory and those that do not depend much on individual teacher's ability to use can be successful in this sector and can make a huge difference in the learning outcomes.

School Infrastructure Leasing

Lot of schools in the APS sector are witnessing huge growth due to rising market demand. Many school owners would like to either increase enrollment in the existing school or start new branches with the same name. However, many fail to do so due to infrastructure and

capital constraints. Finding a suitable land and building a school is time consuming and it requires lot of capital commitment. Neither are school owners able to arrange for capital nor are they able to dedicate time to find buildings that are suitable to run schools. Some, who manage to do so, run schools in buildings that are not conducive for learning. Infrastructure leasing offers a solution with huge market potential. An interested enterprise can identify high growth communities in urban areas, partner with land owners and construct buildings which can be designed specifically for schools. There is an opportunity to provide such constructions to progressive school owners for lease or on a revenue sharing basis.

Teacher Training

Well trained teachers are crucial to achieve desired learning levels in a school. Lack of trained teachers is one of the key challenges faced by most of the schools in this sector. Interviews with APS leaders highlight the demand for teacher training programs. However, many traditional classroom or workshop style training programs see limited success in this sector. It is difficult to pull teachers out of the classroom for training as the schools do not have extra teachers. Moreover these teachers need continuous monitoring and support instead of one-time intervention. This provides an opportunity to standardize teacher training through technology enabled video demonstrations. This allows teachers to get trained at their convenience and in a sustained manner. This further enables teachers to prepare for one day at a time. Also, one can employ innovative techniques to monitor teachers in the class room and provide feedback to them.

School Management / Advisory Services

APS sector is witnessing huge growth and many school owners are starting school chains to replicate their success. Such school chains cannot depend only on one individual, the school entrepreneur to be successful. It should have a professional management team with decision making responsibilities. It should have well documented systems and processes that the schools can replicate. Consistent curriculum and teaching methodologies should be developed and teachers across the schools should be trained on them. Many APS owners fail to manage this growth well due to lack of competency, management bandwidth and direction. Such schools require professional help during this growth phase. This provides an opportunity for enterprises to provide school management services that can help these schools grow.

Very few school owners have the ability to identify and implement relevant solutions to overcome gaps. These school owners need expert help to prioritize gaps, to identify relevant solutions and to develop an implementation plan. They need help to monitor budget and the usage of the solutions. This presents an opportunity for enterprises to provide such advisory services to schools to help them improve performance.

School Rating & Accreditation

The school ratings help the APS ecosystem in three significant ways. One, it helps the school leaders to understand gaps in school performance and prioritize interventions. Two, it helps parents to monitor school performance and make informed school choice. Three, it helps investors and solution providers to understand opportunities and develop relevant solutions. Thus this is a great opportunity for an enterprise to create an enabling ecosystem for the APS sector and solve quality problems in the sector. Through school ratings one can empower parents and the community at large by giving them access to information so that market demand can drive quality improvement in this sector. An accreditation model can act as “Quality Certification” or “Seal of Approval” for a school based on its outcome. This can develop into an alternate way of recognizing APS. GMC has already taken steps towards building such rating and accreditation model to support growth of this sector.

We are hopeful that the information contained in this report and opportunities highlighted above would help interested enterprises to form their strategy for the APS sector while we also hope that it creates curiosity and interest among enterprises who have not considered the APS sector so far.

Leadership Mentoring

As identified in the report, there are schools in the APS sector that are performing below acceptable quality. These schools run a risk of survival in the market because of low performance levels. In order to improve these schools and help them to continue in their mission to serve these communities, it is essential to provide mentoring to these school leaders. There is a need to change the way they run the school and this is possible only through change in their mindset. Awareness building programs and effective leadership workshops are required for these school leaders. Long-term leadership programs or certificate courses which can guide the APS leaders could be one of the solutions to this. Interventions that can help build management capacity in these schools can be of great help to these school leaders.

Access to resources

Many schools in this sector are limited by the resources that they have due to the low fee. Schools that have achieved scale are able to generate surplus that they can invest in learning interventions and quality improvements. Whereas, schools which are not performing well are limited by the resources they have. Quite understandably, such school owners find it difficult to spend their marginal surplus on external solutions. Moreover, many such schools find it difficult to get financing support from the existing financial institutions. This further limits their ability to improve and hence they get caught in the vicious circle. Such schools need external support - both financial and non financial - to come out of this vicious circle. Ecosystem players, especially not for profit agencies and foundations which are working towards improving this sector can support and help such schools grow and improve.

APPENDIX

APS PERFORMANCE DATA

Appendix: APS Performance Data

This section provides basic details such as size, fees, facilities, teaching quality and financial performance of the affordable schools. The analysis in this report is based on a sample of 200 APS assessed by Gray Matters using the School Assessment Tool[5].

The APS sample pertains to schools operating out of three cities in India - Hyderabad, Delhi and Bangalore, with majority schools from Hyderabad. All these schools are duly registered as not-for-profit societies as per the regulatory requirements. These schools follow the State Board of their respective states, with recognition up to Class 7 or Class 10 (with an exception in Delhi, where these APS are mostly recognized till Class 5 only).

Size And Fees

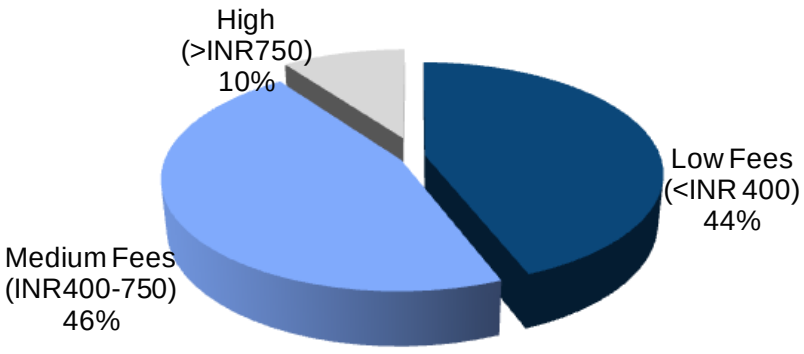
A typical APS is small in size with an enrollment of around 400 students. In the sample of 200 APS, 60% schools are small in size with less than 500 students, while 30% schools have up to 1,000 students. Only 10% schools are categorized as large in size with over 1,000 students. Most of these APS students are in primary classes (44% of the total students), followed by 31% in pre-primary classes. Enrollments are lower in secondary classes at an average of 25% of the total.

APS have a balanced gender ratio with girls constituting 48% of the total students. Contrary to the popular belief of lesser girl students in senior classes, the gender mix of students remains almost same across individual grades.

Figure 9 below highlights that the girls constituted almost equal percentage to the total enrollment of the APS across all grades.

The fees per month for these APS is in the range of INR 400-500 (USD 8-10) including the tuition fees, terms fees and any other recurring fees (Average fees - INR490 (USD 9.8), Median fees - INR 420 (USD 8.4). Majority (90%) of the schools are charging low (<400 per month) to medium fees (INR 400- 750 per month (USD 8-15) - refer to Figure 9. Some schools charge extra fees for additional facilities provided such as transportation or new learning interventions.

Figure 9: Percentage of Schools by Fees Range



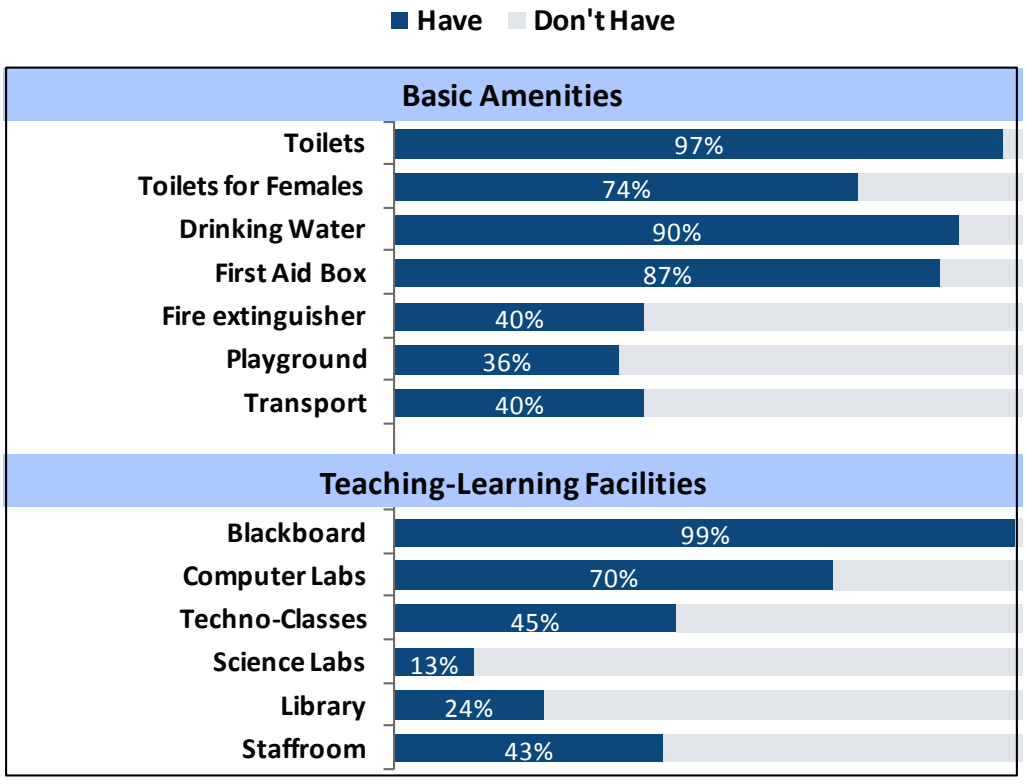
[5]Details of the tool are provided in the 'Background' section under School Rating Tool

FACILITIES

It is commonly assumed that APS lack infrastructure required for creating conducive learning environment. However, assessment of APS shows that most schools have basic facilities available for students such as proper functioning toilets, separate toilets for girls, drinking water and first aid boxes (refer to Figure 10). Moreover, increasingly APS leaders are realizing the importance of learning aids. Nearly 3/4th of the APS have proper computer labs in their schools. This is much higher than the 40% percent schools with computers in the previous year. In addition to it, 45% of the schools have started techno classes (digital classrooms) where they use digital content to supplement studies for students. Many APS have signed deals with digital content providers such as Sunitha Infovision, Educomp, Edurite, etc. to source curriculum related content to be used in techno classes.

Although school leaders have invested in improving the infrastructure in their APS, they need to work on improving the usage and effectiveness of these facilities for better learning outcomes. The teachers in APS need proper training and hands-on support to make good use of available learning aids and facilities. This also highlights the potential opportunity for APS solution providers to bundle their solutions with on-field support or training to have maximum impact of their products and solutions.

Figure 10: APS Infrastructure (percentage of schools)

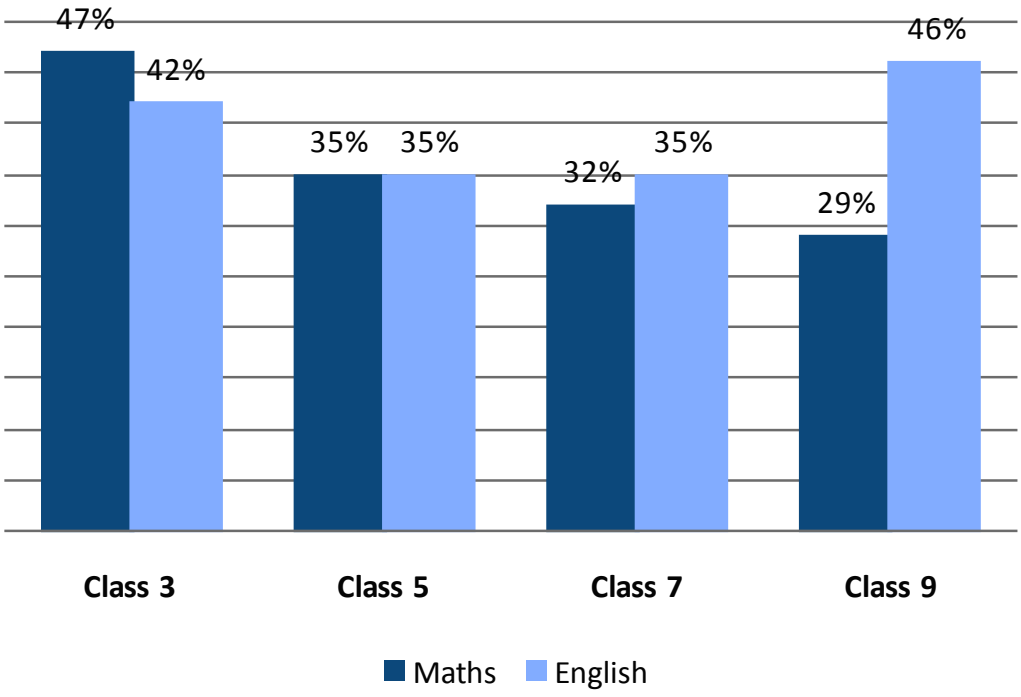


The main constraint observed in APS infrastructure is primarily the lack of space. Most APS have typically 10-20 square feet area per student and nearly 35 students per classroom. Lack of space allows very few schools to have playground within schools. Only 36% of the APS have playground facility. But many schools are observed to be using play spaces, parks or empty plots in the neighborhood to conduct sports activities.

STUDENT LEARNING OUTCOME

Success of any school depends on the quality of student learning outcome. APS have emerged as a solution to the market demand in low income communities for better quality of education. The performance of APS students on the GMC standardized grade specific tests is promising though it still has a long way to go before it can be called good quality. The average score in both English and Maths is in the range of 35-40% across grades. The figure below shows average score of students in English and Maths in GMC tests.

Figure 11: Performance of APS Students on Standardized Tests



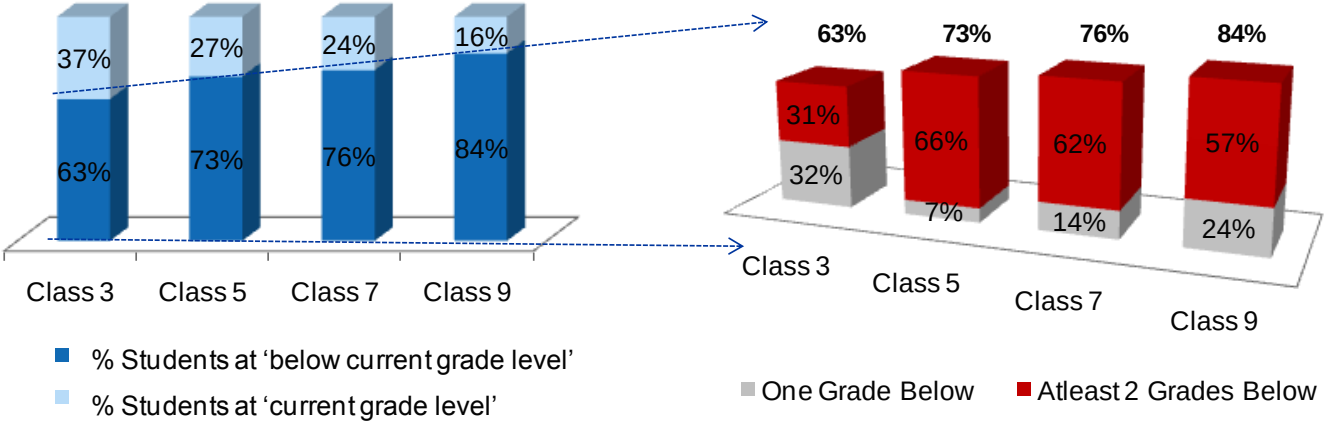
It is observed that the grade specific learning level of students in APS decline as they move to senior classes. This is primarily due to lack of well trained teachers and appropriate learning aids, which becomes essential to achieve desired student learning outcomes in senior classes.

GMC standardized tests are cumulative in nature. They not only test the capability level of students on the current grade objectives but also include questions from earlier grades. Grade level analysis of student's performance highlights that nearly 3/4th of the students across classes perform below their current grade level [Figure 12]. This percentage shows an increase as students move from junior to senior classes. A significant percentage of

these students are performing at least two grades below their current grade level. This highlights the gap in the learning levels of students as they graduate to secondary grades. This presents a huge opportunity for learning solution providers to design a remedial education solution to bridge this gap and bring students' performance to grade appropriate level.

Like in any sector, there are schools in the APS sector that have performed far better than expected while some needs a lot of improvement in student learning levels. There are 50% of schools that have an average student score greater than 40%, with 10% schools with over 50% marks. It is important to recognize that not all schools perform uniformly. There are schools that perform well and schools that perform poorly. This is where it becomes important to develop an outcome based rating and accreditation system that allows progressive schools to thrive. The other schools can be given targeted help to improve its performance with time bound targets.

Figure 12: Grade Level Performance of APS Students



TEACHING QUALITY

As these schools are privately "owned" and managed by resident entrepreneur, these schools have high teacher attendance rates with an average attendance of 89% (compared to average of 69% in India – ASER estimate based on 5 states).

The student-teacher ratio, in the APS is healthy at an average of 27:1. This is lower than the national average of 32 for India as well as maximum of 40 for primary classes and 35 for secondary classes allowed by Right to Education Act (for schools with more than 200 students). A closer look at the ratio shows that student teacher ratio is much higher in pre-primary classes at 35:1 followed by primary classes with a ratio of 29:1.

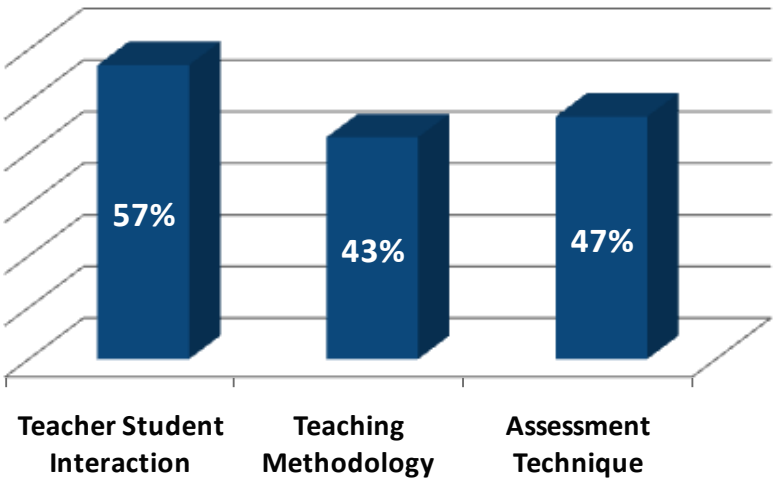
Given the fact that the APS sector is constrained by a low cost model the schools cannot afford high teacher salaries. The average salary of teachers is about INR 4,000 per month (USD 80). Although, some variations were observed among cities like average salaries in Delhi APS is much higher at INR 6,600 (USD 130) compared to Hyderabad's average of

INR3,600 (USD70). Due to low salaries nearly a quarter of the teachers in these schools are less than graduates, while only 2/5th (38%) have formal teacher training qualification (M.Ed. /B.Ed. Degree or Teacher Training Certificate).

This is significantly lower than teacher salaries in public or Government Schools, which ranges from INR 8,000 to 17,500 (USD 160 – 350), depending on the classes taught and qualification levels of teachers (as per the Sixth Pay Commission report).

Another important aspect of assessing teaching quality is to assess the pedagogy in these schools. GMC developed a metric for measuring pedagogy with focus on three key skills – student teacher interaction, teaching methodology and assessment techniques. The figure below shows percentage scores of teachers on these parameters. APS teachers are relatively better in managing the students in the classroom. They are able to maintain a disciplined environment and are patient while dealing with students. However, majority of the teachers fare poorly in teaching methodology scores. Only a few teachers can enable conceptual understanding of students by using relevant contextual examples or using appropriate teaching aids such as charts, maps, and flash cards. Teachers make limited efforts to engage students in problem solving and discussions to encourage peer-learning. This is directly reflected in the learning gaps in the students. Assessment techniques used by teachers within the class also needs improvement. Teachers need to ask questions to students to improve their understanding and not merely repeat facts.

Figure 13: Pedagogy



FINANCIAL PERFORMANCE

Only a handful of assessed schools prepare audited income statements and balance sheets. GMC assessment analysts collect financial information from the school records and prepare estimates for potential revenue and cost streams. Although the financial information is not very accurate, it provides a good picture of financial performance as data around key heads is reasonably correct.

The financial analysis of the assessed APS shows that more than 80% of the schools are making operational surplus. The operational margin is also impressive at an average of 36% (median 32%). This reflects on the success of APS as well as the reason behind growing number of them. A typical APS earns revenue of INR 5,300 (USD 106) per student per annum while it incurs an expense of INR 3,600 (USD 72) per student per annum. This allows for a margin of INR1,700 (USD 34) per student per annum and it increases with scale.

We also looked at the financial performance by class segments of APS. The analysis shows that for majority of the schools, pre-primary classes are most profitable followed by primary classes. Secondary classes are least profitable for most of the APS. This is true as pre-primary classes do not investment a lot on learning aids and these schools hire teachers who are less than graduates to manage pre-primary classes. Also student teacher ratio is highest for these classes allowing for less expense per child (median – INR2700 (USD 54) and hence better margin [Table 1]. Whereas in secondary classes, schools are required to make more investment on learning aids, spend more on teacher salary to hire qualified teachers and organize extra classes etc. Also, most of the APS have lower enrollments per class in secondary grades. This leads to higher expenses per student (INR 4,900, USD98) and lower margin.

Table 1: Financial Ratios by APS Class Segments

Ratios	Pre-primary	Primary	Secondary
Revenue per Student	INR 5,200 (USD104)	INR 6,000 (USD120)	INR 7,700 (USD156)
Expense per Student	INR 2,800 (USD 56)	INR 4,100 (USD 82)	INR 6,400 (USD 128)
Surplus Margin	35%	33%	24%

About the Author

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Richa is working in the Affordable Private School sector with Gray Matters Capital for nearly two years. Richa has a passion to identify market driven solutions for delivering high quality education to low income communities. She has been instrumental in designing the APS assessment tool and analysis framework to evaluate schools on key performance indicators. She also conducted effective leadership workshops for progressive school leaders. Before joining Gray Matters, she worked in areas like business consulting and research in McKinsey & Co. (with focus on Asia Pacific region), Pulsar (with focus on Middle East region) and Intellecap (with focus on development sector consulting).

Richa did her Masters in Business Administration (MBA) with dual major in Strategy/ leadership and Analytical Finance from Indian School of Business (ISB), India. Her undergraduate degree was Bachelors in Commerce (Honors) from Hindu College, Delhi University.

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