

Measuring Parental Satisfaction with Online Education in Schools of Karachi

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Abstract

Online education presents itself as an option that can yield benefits for developing countries like Pakistan. The education sector of Pakistan was greatly affected due to the pandemic that forced the schools' operation to be run online like many other businesses and industries which provided the researchers and policy makers with a chance to study the possibilities associated with online education in the Pakistani context. This study focuses on researching the effects this transition had on parents by measuring their satisfaction levels. The instrument used to collect quantitative data for this study includes categories, school-level technological support, school-level instructional support, curricular programs, social interaction and overall satisfaction with the online education. Differences of parental satisfaction in these categories and the factors that influence them such as school fee, educational levels of parents and number of enrolled children per family have been studied. The findings revealed that parents are satisfied given the challenges and hurdles that schools have faced transitioning from on-campus to online education. A few significant differences were found between number of children enrolled in online education and parental satisfaction with technological support as well as social interaction. Significant differences were also found between school fee and parental satisfaction with curricular programs. These findings provide us with future directions for further research in the direction of integrating online education in Pakistani school setting.

Keywords: parental satisfaction, online education, online learning.

Introduction

Learning that is through the world wide web and where students are connected to the subject matter via internet is termed as Online Learning or Online Education. Online Education is sometimes referred to as cyber-education and now with the use of mobile in every corner of the world, other terms such as mobile learning or m-learning have also surfaced (Muhdi et al., 2020).

Amidst the pandemic of COVID-19 the education system of Pakistan has also utilized the internet and technology to continue the process of education as effectively as possible. It brought with it unprecedented conditions in all the aspects of human life and the world was not the same anymore. The United Nations declared that education was one of the sectors most impacted by COVID-19 and the preventive measures and policies that had to be created and applied as a result. (Putri et al., 2020). Schools in many parts of the world switched from on-campus to Online Education or distance learning. Online tools such as Google Classroom, Zoom, and Microsoft Teams etcetera were used to engage students and teachers in the teaching and learning activities (Kumar & Kumar, 2020).

This closure of schools in many countries posed challenges to the continuity of education and it became a high priority for the policy makers across the globe to build capacity and increase adaptability for any such events that might occur in the future as well. According to Ramadhan (2020) internet users in the world have reached 60% of the population and this is being used in advantage for many businesses and services (Muhdi et al., 2020).

Pakistan, like every other country coping with the challenges of the pandemic shifted towards online learning or distance learning during lockdowns that were enforced during the pandemic (Faize & Nawaz, 2020). Though parents were supportive to the shift in the lesson delivery mode from face-to-face to online, there were still many hurdles that they faced in order to support their children in a learning environment that is new for all stakeholders (Kumar & Kumar, 2020). Zeithaml (2000) expressed that satisfaction is studied by researching on the administration of an organization and the consistent performance of the education system. Parents are the most important stake holders and their expectations from

the school and their experiences determine the satisfaction levels. Parents are the ones who must put in their time, effort as well as finances to ensure the wellbeing and development of their children. It has been suggested that their expectations should be considered as important as a customer's demand and their demand should meet their expectation which in turn will result in customer's satisfaction (Kumar & Kumar, 2020).

Nickinson et al. (2020) reported that online learning needs appreciation, but without quality assurance and customer satisfaction it will be ineffective (Faize & Nawaz, 2020). This gives rise to the matter of parental satisfaction with online classes and the need of investigation in this area. The pandemic provided us with a chance to adapt and uncovered many areas of improvement regarding integration of technology in any educational programs. This could lead to innovation in learning like flipped classrooms, blended learning and overall flexible customized approaches to teaching and learning that can be used to achieve literacy rates and student retention ratios in formal education at all levels (Gul et al., 2023).

Previous literature shows that online education that was being carried out with the formal education was unable to provide the accepted level of satisfaction and effectiveness due to various challenges and reluctance from students (Faize & Nawaz, 2020), this study will provide the parental angle to the satisfaction levels which are prudent to be addressed if we are to move forward towards progress. Adapting to the online mode of education is not a choice anymore and by studying how the school's technological and instructional support as well as the social interaction along with effective curricular programs can influence the parental satisfaction level, we can understand the gaps and opportunities of online education in Pakistani context giving us a direction towards developing better strategies for future implementations.

Literature Review

Online Learning and Online Education

Over the past decade online learning has been identified as a fast-growing trend even before the pandemic (Garbe et al., 2020). Online learning is one in which classes are held through a timetable in real time or may be recorded by using different technological equipment and tools (Bokayev et al., 2021). It is also defined

as a learning experience in a synchronous or asynchronous environment in which students and teachers interact with each other using the internet from anywhere in the world. It is often considered affordable and flexible as students can learn at their own pace and convenience (Faize & Nawaz, 2020). Another term used for online education is distance learning, all material and instruction for various tasks are provided online to the students who then submit it upon completion (Bokayev et al., 2021). Literature shows that online education yields much better results than face to face courses, it also affirms that online education more customized, intimate and versatile catering to the unique demands of a learner (Zhou et al., 2022; Gul et al., 2022).

Pakistan's readiness for Online Education Programs

Online education has faced criticism, particularly in developing nations, because of inadequate preparation in terms of hardware, software accessibility, internet availability, and technology for students, educators, and school officials (Muhdi et al., 2020). Developed countries who have prioritized education and its quality in the past were better equipped to deal with the situation during the pandemic. Pakistan is also focusing on increasing the quality of education especially ever since the pandemic forced its education system to be run online (Akram et al., 2020) and exposed the technological unpreparedness. Online learning has proved to be useful in building technical skills in students as well as teachers in the past but that was being done when the option of face-to-face classes was available. Now when technology-based learning became unavoidable during pandemic, the education sector in Pakistan is faced problems such as limited technical knowledge and lack of resources. Login issues, low audio video quality, loading errors etcetera all adding to the frustration of teachers and learners (Faize & Nawaz, 2020). Keeping in view all the challenges a developing country like Pakistan has faced, digitization of learning is still not an option anymore instead it has become a necessity (Faize & Nawaz, 2020). Online education and remote learning are the two choices accessible to teachers, students, and parents in Pakistan who aim to equip the future generations with the skills needed to succeed in a global context and thrive socially, economically, and environmentally (Shaikh & Abbasi, 2024)

The elementary, primary, middle, and secondary all schooling was taken up online during the pandemic; the age group of these learners ranged from three years to seventeen years. This provided the policy makers and educators with a chance

to learn more about the feasibility of online education as well as the measures that could be taken to fill the gaps. One of the main concerns that emerged from the research studies was that the younger age groups need support of parents in most of the educational activities carried out online (Gul et al., 2023). An added burden comes upon parents who had to deal with their daily professional activities as well as supervision of their children's educational activities. This also consequently signifies the parental involvement in the planning as well as prioritizing their satisfaction required for offering any educational programs online (Guimba et al., 2024)

The transition from on campus to online mode of education impacts all the stakeholders and may pose a great many challenges. The first and foremost is associated to the provision of resources and socio-economic status, in Pakistan a major group of population cannot afford modern technology. Another important thing to note is the fact that where there is affordability it is not always a priority to fulfil the demands of changing educational dynamics. It is also observed that parental aspiration plays an important role in providing the learning environment (Akram et al., 2020). Secondly the digital efficacy of parents is also required as young children need supervision and support to learn in online settings, here the educational background of parents becomes significant (Garbe et al., 2020). Lack of social interaction face to face with the instructor can also be a challenge (Akram et al., 2020). Parents from all socio-economic and educational backgrounds try to provide their children with the best of education offered in their circumstances and it is only natural for parents to do so. Such drastic changes without ensuring quality, makes the online learning environment prone to ineffectiveness (Faize & Nawaz, 2020).

Parental Satisfaction with Online Education

Satisfaction can be defined as a state which is realized when an individual feel that the experience, performance, or his expectations have been met or exceeded (Kumar & Kumar, 2020). Every business has certain procedures and indicators to ensure their quality and customer satisfaction. In the education sectors parents' satisfaction include the child's wellbeing, adequacy of school resources, quality of learning activities, degree of engagement of child in learning activities with the teacher as well as good teachers (Kumar & Kumar, 2020). The education sector operates on various quality assurance models throughout the world. The

customers are students but in true sense it is the parents as they are the ones who make choices for the learners and they do so by keeping in view the best they can do to provide them with opportunities in the future along with ensuring their wellbeing (Kumar & Kumar, 2020). It is prudent that the satisfaction of parents be considered, and their levels of satisfaction be measured. The following categories have been identified (Butz, 2003) for effective measurement of parental satisfaction with online education.

School-Level Technological Support

Technological support at school level is required as the transaction of knowledge is initiated from there and teachers and learners both are coordinated through school resources. According to research studies building an ecosystem that can mimic the face-to-face infrastructure of an educational institution, is a lengthy process and takes more than 6 months for single online course to be planned, organized, and delivered (Hodge et al., 2020). In recent past, the private schools of Pakistan launched the online learning programs on a short notice so most of them were limited to the basic lecture delivery, assignment creation and submission, others tried different Learning Management Systems (LMS) for better management and experience. Many private schools allocated dedicated helplines for technical support and assistance to both students and teachers (Awais, 2023).

School-Level Instructional Support

Instructional support at the school level has been considered a necessity to impart the knowledge of concepts though online classes as effectively as face-to-face classes. Research suggests that it is a challenge for teachers who are required to provide engaging active learning opportunities keeping activities student-centered in online sessions (Muhdi et al., 2020). This informs us about the requirement for professional development of the teachers specifically focused on planning and executing engaging lessons through online mode of instructions (Farooq et al., 2020). Furthermore, parents' training regarding online learning mechanism of school children without over burdening and compromising their parents' professional commitments can be explored in terms of school level initiatives for improving instructional support (Axford et al., 2019; Guimba, 2024).

Curricular Programs

The curriculum of an education program determines the learning experiences that will be provided with the help of a conducive learning environment. These provide the guidelines as well as tangible results in the form of assessments. Parents are the main decision makers of their child's life as according to Durisic & Bunijevic, (2017) for successful implementation of curriculum parental involvement is necessary. Bronfenbrenner (1995) states that the learning environment plays a crucial role in the curriculum planning and implementation. School, community and family are all part of the learners ecological system. Parental feedback regarding curricular programs of online education can not be overlooked (Guimba, 2024; Zhang & Livingstone, 2021).

Social Interaction

Many scholars argue that online education does not provide students with the social interaction required for overall development of a young mind (Akram et al., 2020). Online learning interactions such as student-teacher, student-content and student-student are required with an effective integration to maximize learning outcomes (Garbe et al., 2020). Research suggests that, social interaction changes from conventional modes of interaction to a more technology-based interaction which is proven to be effective in enhancing learning outcomes, especially in third world countries where access to education is an issue (Awais, 2023).

Rationale of the Study

There is limited data available on parental satisfaction with online education in developing countries like Pakistan and its impact on education is still an ongoing phenomenon all around the world. The sudden shift to online education due to the COVID-19 pandemic has significantly impacted the educational landscape in Pakistan, prompting an urgent need to understand parental satisfaction with this new mode of learning, particularly in private schools. Parental satisfaction is a vital measure of the perceived quality and effectiveness of online education, directly influencing students' engagement and success. By gauging parents' satisfaction levels, educators and policymakers can gain insights into the strengths and weaknesses of current online education practices, enabling them to make informed decisions to enhance educational outcomes (Pratiwi et al., 2022).

This requires empirical studies to explore various factors affecting parental satisfaction with online education in private schools, such as the number of children enrolled, school fees, parents' educational qualifications, and differences between mothers' and fathers' satisfaction levels. (Kumari & Jayathilaka, 2022).

Purpose of the Study

This research aims to examine the determinants of parental satisfaction with online education in Karachi's private schools, focusing on variables such as, tuition costs, parental education levels, and the comparative satisfaction of mothers and fathers. By investigating these dimensions, the study seeks to identify significant differences and underlying trends that can inform improvements in online education delivery. Understanding these aspects will help address disparities, ensure equitable access to quality education, and support the development of more effective online learning environments that meet the diverse needs of students and their families.

Research Questions

Following are the research questions and their corresponding hypotheses that will be addressed through this study:

Question 1. Are there any significant differences between number of children and parental satisfaction with online education?

H1. Are there any significant differences between the number of children enrolled in online education programs and parental satisfaction with online education.

Question 2. Are there any significant differences between school fee and parental satisfaction with online education?

H2. There are significant differences between school fee and parental satisfaction with online education.

Question 3. Are there any significant differences between parent's educational qualification and satisfaction with online education?

H3. There are significant differences between parent's educational qualification and

satisfaction with online education.

Question 4. Is there a significant difference between mothers' and fathers' level of satisfaction with online education?

H4. There is a significant difference between mothers' and fathers' level of satisfaction with online education.

Methodology

Research Design

The research questions and hypothesis need that this study should be conducted quantitatively. A quantitative study is particularly useful when the goal is to systematically measure variables and analyze statistical relationships or differences between them. This approach is suitable for this research on parental satisfaction with online education in Karachi. Further, this quantitative study employs a structured survey to measure parental satisfaction with online education, focusing on key areas such as technological and instructional support provided by schools, the quality of social interactions facilitated by online platforms, the effectiveness of curricular programs, and the overall contentment of parents with their children's online learning experience (Hai-Jew, 2019).

Sample

For this study the participants were selected through convenience sampling. More than 500 parents were approached who had at least one child enrolled in a private school where online classes are conducted. These parents were requested to participate in the study through an online survey. However, 316 parents responded. The sample was selected to ensure representation across various demographic factors such as socioeconomic status, educational background, and the number of children enrolled in online education programs. This approach aims to gather diverse perspectives and experiences regarding parental satisfaction with online education in Karachi's private schools.

Research Instrument

The research instrument was a Likert scale-based survey tool which was used for research by Craige Warner Butz (2004). The survey contains the

categories, school level technological support, school level instructional support, social interaction, curricular program, and overall satisfaction. Cronbach's alpha was calculated and for each dimension the score was above .80. A Cronbach's alpha coefficient of 0.80 means that the items in your scale or questionnaire are considered to have good internal consistency.

Procedure for Data Collection

The study employed a quantitative research design to investigate parental satisfaction with online education in private schools of Karachi. The research commenced by approaching 500 parents who have at least one child enrolled in a private school where online classes are conducted. Parents were requested to participate in the study through an online survey, which was distributed using various online platforms and social media channels. The survey instrument was developed based on a review of relevant literature and included questions pertaining to parental satisfaction with online education, demographic information, and factors influencing satisfaction levels.

Upon obtaining informed consent from participants, the online survey was administered, allowing parents to respond to questions at their convenience. The survey collected data on various aspects of parental satisfaction, including the perceived effectiveness of online teaching methods, the quality of educational materials, technical support, and overall satisfaction with the online learning experience. Additionally, demographic information such as the number of children enrolled in online education programs, school fees, parents' educational qualifications, and gender was collected to analyze potential differences in satisfaction levels across these variables.

Data Analysis

After the data collection phase, statistical analyses were conducted to examine the relationships between different variables and to test hypotheses regarding factors influencing parental satisfaction with online education through SPSS. Descriptive statistics were used to summarize the overall levels of parental satisfaction, while inferential statistics, such as chi-square tests and t- test analysis, were employed to identify significant differences and relationships. The findings of the study provide valuable insights into the factors affecting parental satisfaction

with online education in Karachi's private schools and inform strategies for improving the online learning experience for students and their families.

Results

This section presents the findings from the data that was collected and analyzed. We aimed to assess parental satisfaction levels regarding various aspects of online education in private schools of Karachi.

School-Level Technological Support

Participants rated their satisfaction with school-provided technological support using a 5-point Likert scale (1=strongly disagree, 5=strongly agree). Results revealed average satisfaction levels, with mean scores ranging from 3.72 to 3.96, and an overall mean of 3.81 (SD=.783).

School-Level Instructional Support

Satisfaction with instructional support, largely influenced by teachers' responsiveness, was also assessed using a 5-point Likert scale. Findings indicated even better satisfaction levels, with a mean score of 4.08 (SD=.712).

Curricular Programs

Parental satisfaction with online academic activities, replacing traditional curriculum, was evaluated. Although slightly lower than satisfaction with technological and instructional support, the mean score remained towards satisfaction (M=3.69, SD=.723).

Social Interaction

Concerns about the lack of social interaction were included in the survey. Despite this, satisfaction level was average, with a mean score of 3.66 (SD=.720).

Overall Satisfaction

This was also measured through the same instrument, but it was found to be the least among all the categories. The mean score was 3.39 with a standard deviation of .685.

These results give us an idea that parental satisfaction with the online education that has been implemented during the pandemic is on a positive side but the overall satisfaction with the online learning depicts some ambiguity with the participants' satisfaction levels.

Number of Children and Parental Satisfaction with Online Education

As table 1. Shows, a one way ANOVA was conducted to compare the effects of number of children enrolled in online classes and satisfaction levels in the categories influencing online education. It was found that number of children enrolled in online education had effects on the school level technological support with $p < 0.05$. [$F(3, 99) = 3.34, p = 0.02$].

Significant differences were also found between the number of children enrolled in online education and the social interaction factor. [$F(3, 99) = 3.438, p = 0.020$].

No significant differences were found between curricular programs, school-level instructional support and the independent variable i.e., the number of children in each family attending online classes.

Table 1

Comparing Number of Children Enrolled with Parental Satisfaction Categories

		Sum of Squares	df	Mean Square	F	Sig.
Tech_Support	Between Groups	5.745	3	1.915	3.339	.022
	Within Groups	56.779	99	.574		
	Total	62.524	102			
Inst_Support	Between Groups	3.734	3	1.245	2.571	.058
	Within Groups	47.926	99	.484		
	Total	51.660	102			
Curricular_Program	Between Groups	3.053	3	1.018	2.000	.119
	Within Groups	50.360	99	.509		
	Total	53.413	102			
Social_Interaction	Between Groups	4.991	3	1.664	3.438	.020
	Within Groups	47.906	99	.484		
	Total	52.897	102			
Overall_Satisfaction	Between Groups	3.331	3	1.110	2.467	.067
	Within Groups	44.561	99	.450		
	Total	47.892	102			

Differences between School Fee and Parental Satisfaction

To compare the effects of school fee on the satisfaction levels of parents with online education one way between subject ANOVA was conducted (Table 2). The dependent variable was the parental satisfaction, and the independent factor was the school fee. It was found that the curricular programs and school fee had significant differences between them as expressed by this equation [$F(1, 101) = 4.207, p = 0.043$]. There were no significant differences found between other categories (school level technological support, school level instructional support, social interactions, and overall satisfaction) and school fee.

Table 2

Comparing School Fee with Categories of Parental Satisfaction

		Sum of Squares	df	Mean Square	F	Sig.
Tech_Support	Between Groups	1.488	1	1.488	2.461	.120
	Within Groups	61.037	101	.604		
	Total	62.524	102			
Inst_Support	Between Groups	.120	1	.120	.234	.629
	Within Groups	51.540	101	.510		
	Total	51.660	102			
Curricular_Program	Between Groups	2.136	1	2.136	4.207	.043
	Within Groups	51.277	101	.508		
	Total	53.413	102			
Social_Interaction	Between Groups	.593	1	.593	1.145	.287
	Within Groups	52.304	101	.518		
	Total	52.897	102			
Overall_Satisfaction	Between Groups	.620	1	.620	1.324	.253
	Within Groups	47.272	101	.468		
	Total	47.892	102			

Differences between Educational Qualification of Parents and Parental Satisfaction

For testing the hypothesis based on research question four and five, an independent sample t-test was conducted to compare differences. There were no significant differences found between educational qualification of parents and their satisfaction levels with online education. Instructional support and overall satisfaction had the $p=0.055$ and $p=0.058$, respectively.

Differences between Satisfaction Levels of Mothers and Fathers

The below given data in Table 3. shows that there were significant differences in the overall satisfaction levels of fathers ($M= 3.08$, $SD= .456$) and mothers ($M= 3.50$, $SD= .697$), $T(316) = 2.65$, $p = 0.09$. There were no significant differences found between mothers and fathers satisfaction levels in other categories (school level technological support, school level instructional support, social interaction, curricular programs).

Table 3

Comparing Levels of Satisfaction Between Fathers and Mothers

		Levene's Test for Equality of Variances				
		F	Sig.	t	df	Sig. (2-tailed)
Tech_Support	Equal variances assumed	.399	.529	1.538	101	.127
	Equal variances not assumed			1.480	35.994	.148
Inst_Support	Equal variances assumed	.637	.427	1.476	101	.143
	Equal variances not assumed			1.713	49.913	.093
Curricular_Program	Equal variances assumed	.009	.924	1.139	101	.257
	Equal variances not assumed			1.182	40.334	.244
Social_Interaction	Equal variances assumed	.133	.717	.431	101	.667
	Equal variances not assumed			.459	42.095	.649
Overall_Satisfaction	Equal variances assumed	1.260	.264	2.656	101	.009
	Equal variances not assumed			3.025	47.968	.004

Discussion

In this research study we measured the parental satisfaction with online education and tried to understand if there are differences based on school fee, relationship with child, number of children and educational levels of parents.

Parental Satisfaction with School level Support

It was found through this study that parents are relatively satisfied with the school's support in online education. On average parents agreed that technological

support provided by the school were prompt and effective. The instructional support was also considered to be adequate. These findings are aligned with the study conducted by Garbe, et al. (2020) who found out that 82.2% of the parents were satisfied with the support provided by the school, the same study also highlights the challenges faced by parents with remote or online education which included accessibility, lack of learners' motivation, balancing responsibilities and learning outcomes. The research design of the two studies differ and Garbe, et al. (2020) employed qualitative method while our research has a quantitative approach. In the said study although parents were satisfied with the support provided by school they still mentioned issues such as the need for teacher's assistance, balancing multiple learners at home, curriculum concerns and lack of subject or pedagogical knowledge of parents. All these can be compared to the areas of online education that were covered under our research. The balancing of multiple learners corresponds to the finding of our research as significant differences were found between number of children enrolled in online education and satisfaction with technological support. It can be inferred that multiple learners at home could pose a challenge to technology related supervision and satisfaction.

Educational Level of Parents and its Impact

The findings did not match the expectation of parents' educational levels having impact on student learning which in turn could effect their satisfaction levels. No significant differences were found in any of parental qualification categories and the areas measured for parental satisfaction. A qualitative study by Khan et al., (2015) found that the higher the level of education of parents guarantees the better students perform, as they are provided with better learning environment at home. During the pandemic the students were taking classes from home and we expected that the educational background of parents might become one of the factors which can result in better students' performance and in turn higher levels of parental satisfaction. Technology became a part of the learning environment that parents had to supervise the educational activities taking place in that learning environment and the qualification of parents were expected to better equip them with the technological skills needed to ensure a conducive learning environment. However, the results did not produce any such significant differences in parental satisfaction, the reasons behind it could be that students are skilled themselves or the parents might not require a higher level of qualification to learn these skills and adapt to the new mode of learning.

School Fee and Parental Satisfaction

In Pakistan it is a well established opinion that public schools do not provide quality education. The private sector is also divided in terms of socioeconomic status. To gauge this factor the study included the research on school fee and if had significant differences in the parental satisfaction with online education. It was found that the area of curricular programs and the parental satisfaction associated to it had significant differences. According to Machard and Mckay (2015), education is evolving away from racial segregation to class segregation. They also believe that choosing the right school has a profound effect on the future opportunities and in long term quality of life of the child. Their study also found that in many developing countries enrolment in private school is linked to income and only who can afford it can enrol in private schools. The less privileged have to make great sacrifices if they want to give their children the same resources and opportunities. In the same study it was revealed that parents want to enrol their children in private schools as township schools or public schools that are low cost, have lack of resources, lack of discipline and are not safe sue to which the academic performance is low. The cost of schooling, commute and socio-economic profiles of students were also taken into account by Machard and Mckay (2015). It can be inferred that school fee continues to impact the curricular programs even when transitioned from on-campus to online education and show differences in parental satisfaction levels.

Differences in the Involvement of Mothers And Fathers

It was found that mothers were more involved in the educational activities and supervision of children than fathers as most of the responses for our survey came from mothers even though deliberate attempts were made to collect data from fathers also.

Limitations of the Study

The first and foremost limitation of the study was the small sample size which might have influenced the findings. Majority of the respondents were mothers and the data does not clearly depict the satisfaction levels of fathers and they were fewer in number. The data was collected online, respondents might not have been able to understand a few items due to lack of face to face interaction.

Conclusion and Recommendations

The technological aspect in education has brought many challenges for the nations across world. Pakistan as a nation have proved to be resilient in all aspects of life. The education sector of Pakistan with all its limitations and lackings is still pushing its boundaries forward and that is clear with the findings of this research also that showed that in these the private schools of Pakistan are able to achieve satisfaction of one of the major group of stakeholders which in terms of service are their customers. However curricular programs need attention if we want our future generations to be able to compete in the post-CoVID-19 era. We need to focus on building our technological inventory, acquiring equipment as well as skills is the need of time. Professional development of teachers is prudent to provide strong instructional support to the changing dynamics of education. We also have to think on the lines that how we are to secure the social-emotional health of students in this age of chaos. If all these dimensions are holistically addressed and incorporated, we will have satisfied parents not just because they understand the limitations but because they will be able to witness effectiveness of the education system.

The findings of this research suggest several avenues for further investigation. Parents of private schools in Karachi demonstrated an understanding of the limitations and challenges faced by schools, as reflected in their satisfaction with the support provided. This insight could be leveraged for capacity building by involving parents in planning and implementing changes aimed at progress. Moreover, the swift and effective adaptation of private schools to online education highlights the potential of this mode for future development. This underscores the opportunity to focus on online education to maximize benefits in the coming years. Additionally, given the widespread availability of internet connections in remote areas of Pakistan, there is potential to expand access to education. Low-cost schools utilizing a single connection and minimal technological devices could fulfill the educational aspirations of hundreds and thousands in underserved communities in the future.

Building upon this study, further research can be conducted in contexts beyond Karachi, such as other major cities in Pakistan, to compare regional differences in parental satisfaction with online education. Additionally, including parents from public sector schools in future studies would provide valuable insights into how satisfaction levels and perceptions differ between private and public

school systems. This would help identify unique challenges and opportunities for improvement across various educational settings.

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