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The case of Indonesia

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FUTURE SCHOOL MANAGEMENT AND LEADERSHIP: THE CASE OF INDONESIA

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Introduction

Indonesia had been practicing a centralistic education management for long time, until the implementation of the law on regional autonomy in 2000. During this era every Indonesian school principal, particularly the public one, were managing the school based on what so called the implementation and the technical guides issued by the central government. The accountability of the education management and leadership should tap long bureaucratic structure, from district office of education, province office of education, to the central government. Thus, every school principal just had limited authority in policy making and in running the school management functions. It was constrained by these particular guides and some other government rules.

The implementation of Law number 22/1999 on Regional Autonomy implied in the decentralization of the education management system that was no longer centralistic. Every autonomous region (in this case district or *kota*/mayoral) has greater authority to run its education management functions in its own region, especially those of the primary and secondary levels of education. At the regional level, every district office of education is responsible for the education management in its own region. The province office of education is responsible for coordinating the district offices of education in the region.

The implication of the education management decentralization is the need for every school to have greater authority. Therefore, every school is encouraged to implement an approach of management that makes it realized.

Conceptually, the school management will be more effective and more efficient if it is supported by information and communication technology (ICT). Efforts in making the utilization of ICT in various public sectors extensive has been the commitment of the Indonesian government since the Presidential decree number 50/2000 on *Telematika Indonesia* was issued. The decree deals with the establishment of a coordinating team responsible for the utilization of ICT in various aspects and sectors of life. In the sector

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of education, in 2001 the government established a coordinating team of *Telamatika Pendidikan* or e-education responsible for implementing a program on the utilization of ICT in the Indonesian education system (Ministry of National Education, 2003).

To some extent the sector of education has taken advantages from the utilization of ICT. Its utilization for supporting the Indonesian school management and leadership, however, is still bits and pieces, but it is expected to be more extensive in the future. The extent to which ICT is utilized for future school management and leadership is the address of the discussion.

School Management Reform

The implementation of decentralization in the sector of education since the year of 2000 elicited the need to reform the school management. The term school management is used to describe the process of optimizing the utilization of all educational resources in regard to achieving objectives effectively and efficiently. The school principal plays important roles both as the leader and the manager. As the leader he or she needs to look at the future, to understand where the trends are carrying us, and to be capable of devising the strategies which need set in place so that the school is creatively abreast of best practice (Beare, 2001). As the manager, on the other hand, he or she needs to create situation and condition of which the management functions, such as planning, motivating and directing, budgeting and controlling is optimally realized.

The reform needs to apply the principles of democratic and fair. The first principle denotes to a situation in which every personnel participates in decision-making. The second principle denotes to a situation in which every school personnel has equal treatment (Megowan and Miller, 2001). In the past, when the education management was centralized, the school had limited authority in decision making. The school should implement the central government policies, and at the school level the principal was accountable for implementing them by encouraging the teachers and the administrative staff to work based on the guides.

Since the implementation of decentralization in the sector of education, however, every district has greater authority to manage education and every school is given by the district government greater authority to manage its resources with regard to achieving its objectives effectively and efficiently. In undertaking the school management the

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principal encourages the school personnel to participate in the process of decision and policy making. This way could affect their commitment and responsibility for implementing the school policies.

It is believed that supports from the stakeholders are needed for school improvement both in terms of facility and quality. For this regard, the management should be accountable and transparent in such the ways the principal as the school manager manages the school based on planning and the stakeholders have the right to access into all information they need. Once the school management applies the principles of accountability and transparency this will affect in enhancing the community participation in the school education development.

The utilization of ICT could support accountable and transparent school management particularly in the areas personal, financial and academic management, and in the establishment of the management information system and the school network (Ali, 2003). In personnel management it needs data base in which comprehensive related-data is collected, stored in a sophisticated system, updated upon needs, retrieved and applied for any important purpose.

In financial management, activities need to be more systematic, accurate and well planned in order to give optimum contribution to the education process. Regarding the enhancement of its effectiveness and efficiency the school needs to develop: 1) a standard for budget allocation, 2) a financial control system through monitoring and auditing every unit's expenditures by reviewing the correspondence between the expenditures and their budget allocation, and 3) an integrated budgeting system in terms of three main sources, i.e., routine budget, development budget, and the budget comes from the community.

In academic management it needs an integrated system of planning, scheduling, monitoring and controlling, recording, and reporting academic activities in more effective and efficient ways. All these will affect in the improvement of the academic quality and the school's reliability. All these are needed to encourage the community and the stakeholders to participate in the school development and improvement.

In order to support the management effectiveness and efficiency the school also needs to establish management information system (MIS) in which all kinds of information, such as those related to personnel, facilities, etc. are stored in a data-base. This will not

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only make the school principal and personnel possible to utilize and up-date the data, but also make the stakeholders have access into the information they need. This will also makes the information related to every aspect and sector of the school education can be managed effectively and efficiently.

The school also needs to establish wider networking. The network is not only limited with other schools and institutions in the same regions but also with those in other parts of the country and outside the country as well. The effort in establishing wider networking will give the school opportunity to build collaboration in various activities with regard to improving the quality of education.

There is an approach in school management that is considered appropriate in giving every school greater authority, i.e., the school-base management approach. In the implementation of this approach every school principal should run the management functions based on the school needs and by considering the school situation and condition. In the future the application of this approach supported by ICT utilization should be the commitment of every school managers and leaders.

Current State of ICT for Education

Digital divide among school managers and leaders is a common phenomenon in Indonesia. Limitations in skill competencies and the availability of infrastructure and facilities are responsible for this phenomenon. There are only a limited number of the Indonesian school managers and leaders who are competent in the use of ICT. Most of them are those in regions where ICT has been utilized in many other aspects of the education practice (Ali, 2005)

Indonesia is the biggest archipelago country in the world in which around 6,000 of more than 13,500 islands (less than 45%) are inhabited. Its total population is over 230 million and around 60% of the population is inhabiting the smallest island among the five biggest ones, i.e., Java Island. This situation make digital divide across regions is wider, whereas the condition of ICT in this country is not as good as its neighboring countries such as Singapore, Malaysia, and Thailand.

The statistical data on ICT infrastructure published by Ministry of National Education (2003) is:

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Telephones (for a population of over 200 million):

1. Telephone kiosks	200,000
2. Telephone booths	300,000
3. Telephone main lines (number of patrons)	7.75 million
4. Telephones, mobile cellular	11.7 million

Internet:

1. Internet service providers	40
2. General Access Speed rate of ISPs	15 KPBS
3. Internet hosts	62,000

Internet users 8 million or about 3% of population (Ministry of National Education, 2003)..

This situation indicates: 1) There is unequal distribution of ICT facilities, due to lack of investment to develop the telecommunication infrastructure, low density of telephone line, i.e., 3 telephones per 100 people and most of the lines are still concentrated in the cities and most rural areas are not reached yet, and the majority of the populations do not have access to telephone lines and to information; and 2) Lack of backbone with sufficient bandwidth. Internet bandwidth for international is 670 Mbps, outgoing 170 Mbps and Incoming 500 Mbps; local bandwidth (Indonesia Internet Exchange or IIX) is 231 Mbps peak. Physical connection in IIX is 2.5 Gigabit (2450 Mbps); and limited access to ICT facilities indicated by data on public internet kiosks: 43%, offices: 41%, residential: 12%, campuses: 3%, and schools: 1% (Yuhetty, 2003).

Vocational secondary schools are considered the pioneer in the extensive use of ICT in the Indonesian schools. Since 1999 the schools have put the ICT program as a compulsory one through which the students are taught basic knowledge and skill in utilizing computer and ICT, its applications in technical activities, and in web design. They have started utilizing ICT earlier than the other types of schools.

In the earlier stage, the use of ICT in vocational secondary schools was just for teaching the students basic knowledge and operation of computer, ICT and web design. Further, they were encouraged to develop communication forum in each region called School Information network (SIN) through which the school teachers and administrators started using internet, exchange mails and other information, and subscribe to SIN mailing list. Once in a month those who subscribe to the mailing list could participate in face-to-face meeting or any other activities. In most regions, the membership of SIN was expanded

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to those of senior secondary schools, junior secondary schools, and even primary schools in the region (Iskandar, 2003).

Decentralization of the education management has encouraged every district and every school to compete one another in several aspects including in the utilization of ICT. In order to support them using ICT Ministry of National Education (MoNE) launched a SchoolNet project in some regions and cities. The project deals with the establishment of wide area network in the cities (WAN Kota) through which the participating schools started establishing a network.

In order to facilitate communication and networking among the participating schools infrastructure such as internet and video conferencing (VoIP) was build in a WAN Kota by their own. In this effort the related-district office of education should support its operational budget. The purposes of the establishment of school networking are for:

1. Helping the government enhance the quality of education by providing the schools with the learning resources that can be easily accessed by those who need anytime.
2. Giving equal opportunity to every student and teacher to be knowledgeable about the use of internet facilities effectively.
3. Intensifying the interaction among schools in various regions by developing positive collaboration.
4. Linking up senior secondary schools and vocational secondary schools with other related institutions such as junior secondary schools, universities, and companies so that there is transparent information that can be used effectively in decision making process (Ministry of National Education, 2002; and Yuhetty, 2003).

Among activities and services undertaken through the SchoolNet are formulating ICT utilization program in the piloted provinces, organizing training on the utilization of ICT, conducting seminars and discussion for teachers and students, and undertaking fund rising program.

In an attempt to make the use of internet by the students more extensive, Post Office Company provides the community with internet that they can access in 116 cities over the country. In addition, there is also a huge number of internet kiosks in every city that

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allow the local community who need access information. These have increased the community's ICT literacy.

A WAN Kota can embrace 10 to 40 schools as a network with regard to improving their quality. Basic services a WAN Kota offered could improve the education quality by providing e-mail service, mailing list, newsgroup, ftp, www, technical support, help desk, virtual library, school magazines, modular learning packages, multi-media learning activities, training packages, and the educational information center. Some of them offer VoIP and teleconferencing services. It can also be used for on-line student admission. In the city of Malang, East Java, parents have already taken advantage of its existence for choosing the best school for their children without much effort required (Iskandar, 2003). To connect between a WAN Kota and another they cooperated with external institutions such as Telephone Company and Indosat Ltd. Company, and also build intercity backbone connection using fiber optic and satellite facilities.

Directorate General of Primary and Secondary Education, Ministry of National Education, collaborated with the Indonesian Internet Providers Association also launched a program of *SMU 2000*. The program deals with providing senior secondary school teachers and students with internet services. The main purpose of this program is to improve the quality of human resources, particularly related to decreasing the number ICT illiterates among the senior secondary school teachers and students. Today the program has been extended to cover primary school, junior secondary school, and vocational high school teachers and students.

The directorate general also launched what so called EdukasiNet pilot project, which is also a kind of schools networking through ICT. In this project the participating schools are those of SSS, instead of VSS. To date there are six locations of the pilot project located in six provinces, i.e.,:

1. Jakarta, comprises 5 schools.
2. West Java, comprises one school
3. Banten, comprises 3 schools
4. Central Java, comprises 3 schools
5. East Java, comprises 3 schools
6. Bali, comprises 2 schools.

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The implementation of EdukasiNet also involves external parties such as Telephone Company, association of internet providers, school internet networks, and the related-organizations. Those institutions have been giving contributions in the following forms:

1. Popular materials for EdukasiNet
2. Socialization of the EdukasiNet program
3. Evaluation material and system of EdukasiNet, and
4. Socialization of ICT throughout the Indonesian society.

It is expected within five years after it was launched EdukasiNet is used by 50% the teachers and students at senior secondary and vocational secondary schools throughout the country. Within ten year to come the users is expected to increase up to 90%. It is also expected within five years 20% of teachers and students at junior secondary schools use EdukasiNet, and within ten years to come at least 5% of teachers and students at primary schools in the country use the EdukasiNet. In order to realize these expectations the government proposed and received aids form funding resource agencies, such as from Korean Government through APEC Cyber Education Network (ACEN) project (Ministry of National Education, 2003).

There are constraints in the utilization of ICT in school management and leadership. First, there has been no national policy regarding the utilization of ICT for school management and leadership. In term of facility and infrastructure, there is unequal distribution over the country. Most of them concentrated in the cities. In terms of finance, the main constraint is the low budget provided by the government for education. At the school level, the financial constraints make it difficult to invest in the procurement of hardware and software, maintenance, and the other operational costs. In particular schools the utilization of ICT highly depends on the initiative and the willingness of the school principal and the local community. Finally, in terms of human resources, the constraints are due to the limited number of school managers who are computer and ICT literate and the number of qualified personnel is limited.

ICT for School Management and Leadership

The facts indicate that the sector of education has extensively utilized ICT and the awareness that it gives significant contribution and benefit to the education practice has been increasing. However, the utilization of ICT in school management and leadership are bits and pieces. It is just found in a limited number of schools, and most of them are

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self-financed. The district government or the district office of education has not given sufficient supports to the schools to utilize it for school management and leadership.

The implementation of Law number 22/1999 on Decentralization has implied in the autonomy of the local or district government to manage the sector of education. Basic and secondary education levels are managed by the local government. However, quality standard, quality control, and curriculum development are under the responsibility of the central government. In the implementation of the education autonomy districts condition varies due to the variation in their available resources. This affects the variation in the district's educational management and achievement. Concerning the utilization of ICT for school management and leadership district supports from the district government is limited. This situation creates wider digital divide among the schools and among the districts.

At the school level, autonomy in the sector of education has also implied in the implementation of school-base management. This is a kind of autonomy given to every school to optimize its capacity and resources with regard to achieving better quality. Condition of the district schools in terms of its capacity and the resource availability also varies that will also affect in the variation of the degree of which the school-base management is implemented and the quality of the school is achieved.

This situation elicits the needs for the schools to cooperate and collaborate by establishing networks. Networking among the schools would make them possible to share resources, experiences and capabilities in the school management and share problems and their solution, as well. In this case, utilization of ICT in the school management would facilitate the networks and would make the implementation of the school-base management much better and more effective.

Although recently the implementation school-base management has not been extensive in the future every school should implement it. Therefore, the government should give some positive contribution to make its implementation is much better. In order to make it happens, however, initiative and commitment of the principal and teachers, as well as participation of the school's local community and stakeholders are needed.

The establishment of "*Cyber Plaza*" at one of public senior secondary school in the district of Bandung, West Java, can be perceived as an example of the utilization of ICT

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in school management upon initiative of the school principal and teachers. Cyber Plaza by its nature is a school ICT center in which some computers, video-conferencing, internet, and teleconference facilities are stored. I

The plaza is connected to six other schools in different locations and to the district office of education through which the school principals could communicate and undertake meeting, seminar, or conference. The teachers and students could also utilize ICT in the plaza for other purposes. Since its establishment was self-financed the utilization of the plaza is not free of charges. The money collected from the charges is used to return the school investment and for maintenance and further development costs. The establishment of cyber plaza is considered a model that could be disseminated to promote the utilization of ICT in the school particularly for the school management and leadership.

Schools could establish ICT center for being utilized in management and leadership, such as in the case of cyber plaza, by utilizing their own resources and available fund. They also could utilize their available facilities and infrastructure such as computer and telephone and utilize WAN Kota and internet service provided by post offices, as well, to start utilizing ICT for management and leadership. All these, however, need the school principals' initiative, commitment of the teachers, contribution from the community and stakeholder, and support and encouragement from the district government, as well, from the central government.

Conclusion

Indonesia has been practicing decentralization in its education management since the Law on Regional Autonomy was implemented in 2000. This has affected in the need to reform the education and the school management in regard to making it more effective and more efficient by applying the principles of accountability and transparency. In the future, the school management tends to apply a school-base management approach. Its application needs to be supported by the application of ICT. Although the awareness on the ICT utilization is increasing and to some extent it has been utilized in the sector of education its utilization in the school management and leadership is still bits and pieces. Future application of school-base management, however, will need to be supported by ICT. In order to start utilizing ICT for the school management and leadership it needs

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the school principals' initiatives, the commitment of the school teachers, the supports from the stakeholders, and the encouragement and supports from the local government

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