

# LEADERSHIPS' HANDLING OF CONFLICT IN SCHOOLS IN THE PHOENIX CIRCUIT

**Deshini Pillay, Durban University of Technology**

**S. Govender, Durban University of Technology**

**N. Dorasamy, Durban University of Technology**

## ABSTRACT

*This study focused leaderships' handling of conflict in schools in the Phoenix Circuit. The purpose of this study was to investigate secondary and primary school educators' perspectives of prevailing leadership styles when resolving conflicts within the school context. Conflict management by leadership is important as it reflects on the type of leadership skills used in an institution. The role of a leader in an organization is vital as it impacts significantly on the institution at large. A leader is accountable for everything that transpires at the institution. It is often contended that the school principal should be seen as a fundamental agent of transformation, creating a space for deliberation and dialogue. School leaders need to work closely with their educators, hence there needs to be collaboration among them. Inappropriate leadership styles have a tremendous impact on the culture of teaching and learning; performance by learners and the morale of educators is affected. The researcher conducted the research in the Phoenix Circuit as this area has many documented cases of unresolved conflict put forward a motion that within Phoenix there are conflicts between leaders and educators in various schools that require urgent intervention from the SADTU Phoenix Branch. Owing to the many unresolved cases of conflict in the Phoenix Circuit from 2013 to 2019, the researcher found that this warrants investigation. The researcher being an executive member of SADTU had open access to case files compared to other unions like NAPTOSA or NATU. The study established the main reason for the escalating conflicts in the Phoenix Circuit was that the majority of the principals were exhibiting inappropriate leadership styles and using ineffective conflict resolution strategies.*

**Keywords:** Leadership Styles, Conflict Management, Perspective of Educators

## INTRODUCTION

This study focused on leaderships' handling of conflict in schools in the Phoenix Circuit. The purpose of this study was to investigate educators' perspectives of prevailing leadership styles when resolving conflicts within the school context. Conflict management by leadership is important as it reflects on the type of leadership skills used in an institution. The role of a leader in an organization is vital as it impacts significantly on the institution at large. A leader is accountable for everything that transpires at the institution. In light of the aforementioned, Botha (2010) contends that the school principal should be seen as a fundamental agent of transformation, creating a space for deliberation and dialogue. School leaders need to work closely with their educators, hence there needs to be collaboration among them. Inappropriate

leadership styles have a tremendous impact on the culture of teaching and learning; performance by learners and the morale of educators is affected.

The researcher conducted the research in the Phoenix Circuit as this area has many documented cases of unresolved conflict (SADTU Member Welfare Case File 2014). The members (SADTU Member Case File 2014) put forward a motion that within Phoenix there are conflicts between leaders and educators in various schools that require urgent intervention from the SADTU Phoenix Branch. Owing to the many unresolved cases of conflict in the Phoenix Circuit from 2016 to 2019, the researcher found that this warrants investigation. Further, the researcher had access to case files because she is an executive member of the Phoenix SADTU branch. The members (SADTU Member Case Files 2014) state the cases of unresolved conflict in schools is a cause for concern as there are grievances from educators regarding conflict management at their schools. SADTU is the largest teacher union in South Africa representing 70% of the teaching force, hence the researcher purposively selected SADTU and further the researcher had easy access to case files, as she is an executive member of the SADTU Phoenix Branch.

The aim of this study investigated leaderships' handling of conflict in schools. The three objectives were to determine the challenges experienced by leaders in schools; to analyze how conflict is managed within schools and to critically analyze the appropriateness of leadership styles employed in conflict management. This study used transformational leadership theory to address the complexity around leadership and the co-operation and competition theory to address the issues underpinning conflict management. The perspectives of educators and school management team (SMT) were explored using a combination of interview schedules for SMT members and survey questionnaires for educators.

The Phoenix circuit was the focus of study which falls under Mafukuzela-Gandhi Circuit Management Centre. The researcher being an executive member of the Phoenix SADTU branch had access to reports on conflict from 2013 which were pending and which warranted the urgency of this to be researched.

Random sampling was used to obtain the diverse viewpoints about leadership and conflict management within the school context. A random sample of 25 schools was selected from 54 schools in the Phoenix Circuit. The Phoenix Circuit had the highest number of unresolved conflicts from 2013. The members (SADTU Member Welfare Case File 2014) mention that the total number of unresolved conflicts from 2013 to date is alarming. It was envisaged that the researcher will be able to identify the factors contributing to conflict within schools and explore critically the role of leadership in managing conflict.

Cele (2013:70) reveals "an excessively high number of conflicts reported to SADTU". Documents on conflicts were analyzed including minutes of union meetings, resolutions and declarations of the union from the period 2009 to 2018. Since leadership plays an integral role in conflict management, the study identified potential leadership styles to efficiently, economically and effectively manage conflict in schools, with a view to ensuring that a culture of teaching and learning prevails.

## **Research Problem**

According to Nieman & Kotze (2006:3), "it is clear that school leadership needs urgent attention as the culture of the school, which is largely cultivated by management, influences the performance and behavior of the members of that organization." (Further, Cabrera 2010:16) argues that "a lack of preparation of administrators in conflict resolution strategies is well documented in educational research findings of conflict in schools." (Foley, 2001: 231) notes that "while it is known that many school administrators perceive their lack of necessary skills in conflict resolution, further information is needed to develop effective professional development

opportunities to meet their needs.” It has to be noted that there are problems within institutions that impede effective leadership strategies for managing conflict in South African Schools, more particularly the schools in the Phoenix Circuit of the Pinetown District in KwaZulu-Natal.

The general aim of this research is to examine leaderships’ handling of conflict situations in schools in the Phoenix Circuit.

## LITERATURE REVIEW

Since the advent of democracy in South Africa in 1994, there have been many changes in the educational system. (Mafora, 2013:1) notes that following, “the political changes in South Africa, one of the major educational reforms introduced were in school governance and management”. These changes have had major implications for all South African teachers, parents, managers and learners. Maboe (2013:10) opines that, “it is a cause for concern that schools in South Africa generally do not perform up to expected management standards.” The underlying reason why managers do not perform to expected standards is due to many factors within the institution.

In any school context, the manager plays a pivotal role in ensuring that the school runs effectively and efficiently. A manager’s role in post liberation South Africa has changed dramatically. Managers are accountable and responsible for the smooth running of the institution they head.

Ngcobo & Tikly (2010:14) argue that “leadership is particularly important in the South African context given the legacy of apartheid education policy and of the struggle to end authoritarian and often dehumanizing forms of leadership which was premised on the creation of separate education system with separate values, purposes and styles of leadership.”

This has impacted on present leadership in schools across South Africa. Karim (2015:340) notes that leaders in a school context have not moved away from the way schools were managed in the past. South African schools do lack effective mechanisms in dealing with conflict. Ngcobo & Tikly (2010:16) aver that school leaders lack skills and expertise on how to effectively manage conflict in schools.

Snodgrass & Blunt (2009:5) endorse this when they state that South African educators have stressed the need to empower principals, teachers, learners and parents with the values, attitudes, knowledge, leadership and skills to manage conflict in a constructive manner. Mboe (2013:1) endorses this by adding that, there is also a significant body of research done in South Africa supporting the view that effective leadership and management are essential to develop good schools.

Karim (2015:340) notes the term conflict management has become an ever-expanding umbrella that is used to cover a variety of approaches. Conflict management teaches life skills, negotiation strategies, and mediation skills. International studies also endorse this. Gordon (2002) notes that in places “like Hong Kong, Malaysia, Taiwan, Korea and Thailand, the cultural norms that characterise principals as well as stakeholders are often in conflict with concepts such as teacher leadership and distributed leadership”. Sackney & Walker (2006) hold that leaders of more collaborative communities need skills in communication, group process facilitation, inquiry, conflict mediation, dialogue and data management. This however, does challenge the norms that exist in schools.

As Walker, Hallinger & Qian (2016:664) elude that caught between these conflicting pressures, it is easy for school leaders to lose their direction as well as their capacity to lead others. It is evident from the authors above, that leaders have little or no formal training in resolving conflicts within their institutions. Dana (2001) notes that leaders need to comprehend structure to be able to analyse conflicts well.

The researcher used two theories in this research study namely Bush's (2003) transformational leadership theory and Johnson & Johnson's (1989) cooperation and competition theory. Caldwell & Spinks (1992:49) argue that the transformational leadership style is essential for autonomous schools. The transformational model is comprehensive in that it provides a normative approach to school leadership which focuses primarily on the process by which leaders seek to influence school outcomes rather than on the nature or direction of those outcomes. The researcher used transformational leadership theory and cooperation and competition theory as the framework for this study.

This study based on (Johnson & Johnson's, 1989) theory of cooperation and competition, has two basic ideas: one relates to the type of interdependence among goals of the people involved in a given situation, the other pertains to the type of action taken by people involved. Johnson & Johnson's (1989) theory of cooperation and competition outlines the different aspects of intrapersonal, interpersonal, intragroup and intergroup processes. Johnson & Johnson (1989) note that the following variables show positive characteristics when dealing with conflict:

- Effective communication is exhibited.
- Friendliness, helpfulness and lessened obstructiveness.
- Coordination of effort, division of labour, orderliness in discussion.
- Feeling of agreement with ideas of others and a sense of basic similarity in belief and values.
- Recognizing and respecting the other by being responsive to others needs.
- Willingness to enhance the other's powers.
- Defining conflicting interest as a mutual problem to be solved by collaborative effort.
- Recognizing the legitimacy of one's and other's interest and the necessity to search for a solution to the needs of all.

Johnson & Johnson (1989:29) state that for understanding the nature of the processes involved in conflict, research findings are of central theoretical and practical significance. The theory notes that constructive processes of conflict resolution are similar to cooperation processes of problem solving and destructive processes of conflict resolution are similar to competitive processes.

## **RESEARCH METHODOLOGY**

Research design according to Nieuwenhuis (2001:70), is a plan or strategy which determines the underlying techniques to be used to analyze the data. This involves identifying the participants' beliefs and values that underline the phenomena and understanding. Henning, Van-Rensburg & Smith (2007:30) state that research methodology refers to the coherent group of methods that complement one another. In this study, a mixed methods approach was adopted to explore the quantitative and qualitative research paradigms by sampling a number of representative educators from different schools in the Phoenix Circuit (Marvasti, 2004). Creswell & Garrett (2008:8) Refer to mixed research methods as a means of collecting, analyzing and using both quantitative and qualitative data within an established approach. The advantage of using mixed methods of research is the ease with which findings are reconciled (Hammond, 2005:16). Thus, this study adopted the mixed methods research approach.

The researcher used the quantitative method to survey educators from 25 schools. The qualitative method entailed semi-structured interviews with SMT members from selected schools.

### **Population**

Babbie (2004:173) defines the study population as an aggregation of elements from which the sample is actually selected. According to Cohen, Manion & Morrison (2007:102) "for

populations of equal heterogeneity, the larger the population, the larger the sample that must be drawn. For populations of equal size, the greater the heterogeneity on a particular variable, the larger the sample that is needed.” The Province of KwaZulu- Natal has 12 districts and 38 Circuit Management Centres(CMCs). There are three CMCs in the Pinetown District – Durban North West, Umhlatuzana/Hammarsdale and Mafukuzela -Gandhi. The researcher used the Phoenix circuit within the Mafukuzela -Gandhi Circuit Management Centre as the unit of analysis of the study.

### Sampling Population

The researcher used a sample of schools from the Phoenix circuit for this study. The participants included the district director, circuit managers, principals, deputy principals, heads of departments and educators. The Phoenix circuit is an area where leaderships’ handling of conflict is a serious problem, as it has the highest number of conflict cases brought to SADTU, which is the largest teacher union in KZN (Table 1).

<b>PROVINCE</b>	<b>No of schools in the province</b>	<b>Districts</b>	<b>Circuit Management Centres</b>	<b>District under study</b>	<b>Number of CMCs in Pinetown District</b>
KWAZULU-NATAL	5475	12	38	PINETOWN	3

The researcher used the probability (random sampling) method in selecting the number of schools and educators who will participate in the research. The Mafukuzela - Gandhi Circuit Management Centre has a total of 19 secondary schools and 35 primary schools in the Phoenix circuit. The researcher’s target population was 10 secondary schools and 15 primary schools.

The researcher used stratified random sampling. Sekaran & Bougie (2016:252) note that “this sampling design which is the most efficient is a good choice when differentiated information is needed regarding various strata with the population which are known to differ in their parameters. This method involves selecting at random from a list of the population (a sample frame) the required number of subjects for the sample.”

The researcher used an interview schedule and a survey questionnaire. The researcher selected a sample that is conducive to the study. The total number of participants for the interview in the primary school was 15. The total number of participants for the interview in the secondary schools was 10. For interview purposes, a total number of 25 participants were selected from the sample of 25 schools.

The researcher selected randomly from the following categories 7 heads of department, 8 deputy principals and 10 principals. In addition to the following, the researcher selected the 4 circuit managers and the Chief Education Specialist: Circuit Management Centre (CES: CMC) of Mafukuzela- Gandhi Circuit Management Centre and the District Director of Pinetown. The researcher used stratified sampling for the questionnaire. The total number of participants for the questionnaire for both the primary and the secondary schools was 500. The researcher distributed 20 survey questionnaires per school. The researcher administered 20 survey questionnaires to the first 20 educators from the staff register.

## Measuring Instruments

The data collection instruments used in this study included the survey questionnaire and interview schedule. In line with (Dornyei, 2003), questionnaires are written instruments that require respondents to write out their answers to a set of questions. Further, the questionnaire minimizes unfairness on the side of the researcher and the respondents (Kombo & Tromp, 2006). Questionnaires are widely used and useful instruments for collecting survey information, providing structured, often numerical data, to be administered easily (Cohen, Manion & Morrison, 2007:317).

The questionnaires included closed and open ended questions and was administered to 500 educators from the 25 selected primary and secondary schools in the Phoenix circuit. The researcher hand-delivered them to the respective schools in a sealed envelope. All participants were given a consent form to complete. The survey questionnaire used the Likert scale. The Likert scale used to measure perceptions and feeling of the respondents. A Likert scale provides a range of responses to a given question or statement.

The researcher used semi-structured interview schedules to collect data from the District Director, Circuit Manager, Principals, Deputy Principals and Heads of Department from the 25 selected schools. The participants were given a written consent form to complete before the commencement of interviews. The participants were advised of their role in the interview. Once the consent form was signed and agreed by the interviewee, the researcher set up a time, date and place suitable for the interviewee. According to (Grbich, 1999:85) an in-depth interview is considered to be a flexible way of collecting qualitative data.

## DATA ANALYSIS

Quantitative and qualitative data gathered through the survey questionnaire and interview schedules were used to analyze the perspectives of educators on Leaderships' Handling of Conflict in Schools in the Phoenix Circuit. The survey questionnaire obtained was analyzed using the Statistical Package for Social Science version 18.0 (SPSS version 18.0). According to Muijs (2004:85), the Statistical Package for the Social Sciences (SPSS) is a commonly used statistical data analysis software package in educational research. SPSS is a computer program that can carry out both descriptive and inferential statistical analyses, presenting information in tabular or graphical form and accessing information from existing data sources such as databases or spread sheets and create output that is ready for inclusion in final reports

The qualitative data collected from the leadership of the school as well as Mafukuzela-Gandhi Circuit and Pinetown District was analyzed using thematic analysis. The analysis approach was derived from the literature review which will speak to the data collected from the interview schedule (qualitative data).

## Pilot Study

The purpose of this research is to gather data from SMTs and educators at schools in the Phoenix circuit on factors of leadership and conflict management. The researcher completed a pilot study that ensured the instruments used for data collection were reliable. The researcher used her current school site as a pilot study to test the instruments. The pilot test sample did not form part of the target population. Reliability of the study was based on the statistical figures that were calculated using calculus alfa.

## **Delimitations /Scope**

The organizational location of the study is the Phoenix Circuit. The institutions where the study was done were located within these areas. It was conducive for the researcher as she is an educator in a school in the Phoenix Circuit as well.

## **LIMITATIONS**

Vithal & Jansen (2006) mention that limitations empower the reader to appreciate what constraints were imposed on the study and to understand the context in which the research claims are set. The study cannot be generalized as it is restricted in its transferability to different contextual settings in different countries, as well as different provinces within South Africa.

## **Validity and Reliability/Trustworthiness**

Flick (2011) states that validity is the best available approximation to the truth of a given proposition, inference, or conclusion. (Cohen, Manion & Morrison, 2007:657) mention that validity is an important key to effective research. If a piece of research is invalid then it is worthless. The researcher ensured that the qualitative data is truthful, valid and honest. This can only be achieved if the participants are honest about their answers to questions. (Cohen, Manion & Morrison, 2007:657) further mention that in quantitative data, validity might be improved through careful sampling, appropriate instrumentation and appropriate statistical treatments of data. The researcher ensured that all survey questionnaires were analyzed appropriately.

Cohen, Manion & Morrison (2007:165) mention that reliability in quantitative research is essentially a synonym for dependability, consistency and replicability over time. Denzin & Lincoln (1994) suggest that reliability as replicability in qualitative research can be addressed in several ways. The researcher ensured that reliability was ensured by checking the accuracy of the transcripts from the interview schedules against the digital recording when the interviews were completed. The researcher conducted a pilot study prior to the actual study. This was for the purpose of reliability and validity of the research instruments in collecting sufficient data to answer the research questions (De Vos, 2002). By piloting the study, the researcher was able to check clarity on data collected.

The researcher also ensured that the survey questionnaires were completed correctly before it was analyzed. Triangulation refers to the use of two or more methods of research. To ensure that the data collected is a true reflection of the research study, the researcher used more than one technique. Triangulation therefore ensures that the researcher looked at more than one perspective to understand the complexity of human behavior (Cohen et al., 2007). In this way the researcher was able to look for recurring patterns when comparing different settings.

## **Anonymity and Confidentiality**

Cohen, Manion & Morrison (2007:84) state that “the essence of anonymity is that information provided by participants should in no way reveal their identity. All the participants’ identities were protected.” Pseudonyms were used.

Cooper & Schindler (2001:117) suggest that confidentiality can be protected by obtaining signed statements indicating non-disclosure of the research, restricting access to data which identify respondents, seeking the approval of the respondents before disclosure about respondents takes place.

Participants in this research were informed that participation is voluntary. If they feel that they cannot participate due to unforeseen circumstances, they were allowed to exit the

research. Participants in this research had to sign the consent forms. The data were accessible to the supervisors and researcher. The data will be kept for a period of five years and then it will be discarded.

### **Ethical Considerations**

As defined by Saunders, Lewis & Thornhill (2007), ethics refers to an appropriateness of one's behaviour in relation to the rights of those who become the subject of one's work, or those who are affected by it. The main ethical issues as espoused by Babbie & Mouton (2004:522) will be considered by the researcher when conducting this study because the researcher has an obligation to protect the rights of the participants to informed consent, anonymity and confidentiality. The researcher achieved this by ensuring that the questionnaire was anonymous.

The researcher ensured that the participant's rights to participate in the study were not violated. It was done by explicitly stating the purpose of the study and the research procedure of the educators before asking them to sign the Informed Consent Forms. The researcher also ensured that respondents' participation was out of no coercion after they were briefed on the research procedure (Heffernan, 2005:108).

Before commencing with this study, the researcher obtained permission from the Kwa Zulu -Natal Department of Education as well as the managers of the selected schools. The approval of the Ethics Committee of the Durban University of Technology allowed the researcher to conduct study which was obtained

### **CONCLUSION**

The article examined leadership and conflict handling situations in the Phoenix Circuit. Literature both internationally and nationally presented and critiqued the different scholars work on leadership and conflict handling situations. The theoretical framework used to shape the study presented theories that addressed (Bush, 2003) transformational model to provide a narrative approach on school leadership and the theory of (Johnson & Johnson, 1989) addressed the constructive processes of conflict resolution. A mixed method approach was used to collect and analyze both quantitative and qualitative data within an established approach. The data collection approach included a survey questionnaire that was administered to 500 educators from 25 primary and secondary schools. The semi-structured interview schedule was used to collect data from the Deputy Director, Chief Education Specialist, Deputy Education Specialist, Principals, Deputy Principals and HODs. Data collected was used to analyze the perspectives of educators on Leadership and Conflict Handling situations in the Phoenix Circuit.

The study aimed to provide a model will assist the Phoenix Circuit that addresses leadership and conflict handling situations. It provided a detail framework that assisted the District Director, Chief Education Specialist, Deputy Education Specialist, Principals and the rest of the Management team in the Phoenix Circuit with effective conflict strategies that ensured all educators are developed and skilled to manage and handle conflict within their institutions. Further research should be done in the two Circuit Management Centre within Pinetown District on leadership and conflict handling situations.

### **REFERENCES**

- Babbie, E. (2004). *The practice of social research, (10<sup>th</sup> edition)*. Belmont, CA: Thomson Wadsworth.
- Babbie, E., & Mouton, J. (2004). *The practice of social research*. Cape Town: Oxford University Press.
- Bush, T. (2010). *Theories of educational management, (3<sup>rd</sup> edition)*. London: Sage.
- Cabrera, E. (2010). Fixing the leaking pipeline: five ways to retain female talent. *people and strategy, 32*(1), 40-45.
- Caldwell, B., & Spinks, J. (1992). *Leading the self – managing school*. London: The Falmer Press.



- Cele, L.G.M. (2013). *Leadership development of school principals: A case study of the role played by one teacher union*. M.Ed, University of KwaZulu- Natal.
- Cohen, L., Manion, L., & Morrison, K. (2007). *Research methods in education, (6<sup>th</sup> edition)*. London: Routledge.
- Cooper, R.K., & Schindler, C. (2001). *Executive EQ: Emotional intelligence in leadership and organisations*. New York: Berkley.
- Denzin, N.K., & Lincoln, Y.S. (2001). *Strategies of qualitative inquiry*. Thousand Oaks: Sage.
- De Vos, A.S. (2002). *Research at grass roots*. J.L. van Schaik Publishers: Pretoria.
- Dorneyei, Z. (2003). *Attitudes, orientations and motivations in language learning: Advances in theory*. research
- Flick, U. (2011). *Introducing research methodology: A beginners guide to doing a research project*. London: Sage.
- Foley, R.M. (2001). Professional development needs of secondary school principals of collaborative based service delivery models. *The High School Journal, 81*(1), 10-23.
- Grbich, C. (1999). *Qualitative research in health: An introduction*. St Leonards, Australia: Allen & Unwin.
- Hammond, C. (2005). The wider benefits of adult learning: An illustration of the advantages of multi method research. *International Journal Social Research Methodology Theory & Practice, 8*(3), 239- 255.
- Hefferman, S. 2005. *Modern Banking in Emerging Economies*. China, City University. UK, 305-316.
- Henning, E., Van Resenburg, W., & Smith, B. (2007). *Finding your way in qualitative research*. Pretoria: Van Schaik Publishers.
- Johnson, D.W., & Johnson, R.T. (1989). *Cooperation and competition: Theory and research*. Edina, M.N, US: International Book Company.
- Karim, D. (2015). Managing conflict by school leadership: A case study of a school from Gilgit – Biltistan. *International Journal of Innovation and Research in educational sciences, 2* (5), 340.
- Maboe, K.E. (2013). *The role of middle managers in schools*. M.Ed, North West University.
- Mafora, P. (2013). Learners and teachers' perceptions of principals' leadership in Soweto secondary schools. *A Social Justice Analysis, 33*(3).
- Muijs, D. (2004). Teacher leadership. A review of research.
- Ngcobo, T., & Tikly, L.P. (2010). Key dimensions of effective leadership for change: A focus on township and rural schools in South Africa, *38*(2), 202–228.
- Nieman, R., & Kotze, T. (2006). The relationship between leadership practices and organisational culture: and education managers perspective. *South African Journal of Education, 26*(4), 609- 624.
- Nieuwenhuis, J. (2007). *Qualitative research designs and data gathering techniques*. Pretoria: Van Schaik.
- Sackney, L., & Walker, K. (2006). Canadian perspectives on beginning principals: Their roles in building capacity for learning communities, *44*, 341- 358.
- Saunders, M., Lewis, P., & Thornhill, A. (2000). *Research methods for business students, (2<sup>nd</sup> edition)*. Sussex: Pearson Education.
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill – building approach, (7<sup>th</sup> edition)*. Sussex: United Kingdom.
- Snodgrass, L., & Blunt, R. (2009). The value of play for conflict management. *South African Journal of Education, 29*, 53- 67.
- South African Democratic Teacher Union. (2014). Member case file. Kwa-Zulu Natal. South Africa.
- Vithal, R., & Jansen, J. (2006). *Designing your first research proposal. A Manuel for researchers in education and the social sciences*. Cape Town: Juta & Company Limited.
- Walker, A., Hallinger, P., & Qian, H. (2016). Leadership development for school effectiveness and improvement in East Asia.