

**SIGNIFICANCE OF ECONOMIC VALUE ADDED AND
CONVENTIONAL CORPORATE PROFITABILITY MEASURES IN
ASSESSING SHAREHOLDERS' VALUE CREATION:
A COMPARATIVE STUDY OF INDIA AND CHINA**

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JULY 2018**

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ASSESSING SHAREHOLDERS' VALUE CREATION:
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by

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Submitted

in fulfilment of the requirements of the degree of Doctor of Philosophy

to the



Indian Institute of Technology Delhi

July 2018

CERTIFICATE

The thesis titled, “**Significance of Economic Value Added and Conventional Corporate Profitability Measures in Assessing Shareholders’ Value Creation: A Comparative Study of India and China**”, being submitted by **Ms. Manju Tripathi** to the **Indian Institute of Technology Delhi**, for the award of degree of **Doctor of Philosophy** is a record of bonafide research work carried out by her. She has worked under our guidance and supervision, and has fulfilled all the requirements for the submission of this thesis, which has attained the standard required for a Ph.D. degree of this institute. The results presented in this thesis have not been submitted elsewhere for the award of any degree or diploma.

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ACKNOWLEDGEMENT

This thesis marks the culmination of my amazing journey at Department of Management Studies, Indian Institute of Technology Delhi. I take this opportunity to express my heartfelt thanks and gratitude towards people who have helped me achieve this milestone of my life.

I dedicate this work to my lifetime mentor: I owe it all to you Mom!

First and foremost, I wish to thank and express my deep gratitude towards my supervisors Dr. Smita Kashiramka and Prof. P. K. Jain for their invaluable guidance, invincible support and encouragement in shaping me into a true researcher; a transformation from a corporate persona to an academician. Memories of the long in depth discussions and their patient hearings are going to stay with me forever.

I am greatly thankful to Prof. Surendra S. Yadav (Chairman, SRC), Prof. V. Upadhyaya (external expert, SRC, Department of Humanities) and Dr. Shveta Singh (internal expert, SRC) for providing key insights in refining the study. I am also highly obliged to Dr. Sourabh B. Paul (Department of Humanities) for the lessons in Econometrics and to Dr. Amlendu Kumar Dubey who readily addressed all my further queries in that area.

My sincere thanks to Prof. Madhu Vij (FMS, Delhi University) for allowing me to access Bloomberg for sourcing secondary data and to Dr. V. K. Singhania (Corporate Tax Consultant) for his useful inputs in the area of Indian corporate taxation.

I am also highly indebted to all the respondents of my survey (questionnaire and interviews), executives from corporate and policy advisories, for sparing their precious time to respond to my questions. But for the responses from Dr. Sanjeev Singhal, Partner, Member Firm Ernst & Young Global, and Mr. Amarjit Chopra, Chairman, National Advisory Committee on Accounting Standards, the survey would not have seen its logical conclusion.

I am eternally grateful to my late grandparents, my father and my siblings, who have always inspired me to live my life on my terms; heartily supported my decision to pursue academics after a 20 years stint with corporate.

Friends in need are the friends indeed – I can't thank enough Subrat Chakravarty who provided an overall picture on executive performance management and Vandana Singh Choudhuri for explaining the operative aspects of an EVA aligned performance management system; their contributions, in capacity as heads, HR of leading multinationals have significantly enriched my survey analysis. Thanks to Dr. Ruchi Sinha (Amity University) I even dared to dream of doing PhD at IITD; she was more confident of my selection than I was. I will miss the heated discussions with Nisha Mary Thomas that has helped us get to the bottom of some of the complex topics from Econometrics. Last but not the least, I am thankful to all the colleague researchers for providing a stimulating research environment and support.

Manju Tripathi

ABSTRACT

Dominance of conventional accounting based corporate performance measures has long been challenged in favour of value based measures, particularly economic value added – EVA (Stewart 1991). The contention is that even the firms generating accounting profit may actually be eroding shareholders' wealth if they are not earning enough to cover the cost of shareholders' funds, pseudo profitability. Moreover, the conflict of interest arising out of partly different goals and risk preferences of managers and shareholders (agency issue) creates dichotomy in performance measurement and management. Consequently, there is a perennial search for a performance benchmark that best links executive performance, enterprise value and strategic thinking; an EVA aligned performance management system is slated to be the most credible means to maximise the firm's value and ensure goal congruence (Stern *et al.* 1996).

Literature presents diverse opinions on superiority of EVA over conventional accounting based measures in estimating shareholders' wealth / firms' value. A large number of studies observe EVA to be a driver of managerial performance and not just a financial performance measure. Contrarily, many studies do not find EVA to have significant impact on value creation. Moreover, some studies state that the benefits of an EVA aligned performance management system is not commensurate with the cost / efforts involved in its implementation. In addition, literature assigns varied reasons for using or not using EVA as a financial performance benchmark.

In view of the diverse and debatable outcomes, the present study aims to examine the issue anew by empirically examining the significance of EVA over conventional financial measures in shareholders' wealth creation in two emerging economies (India and China). China has been selected for comparison, as India and China are the fastest growing Asian economies with huge population and similar demographics; contemporary adversaries and hottest Asian investment

destinations. In addition, the study appraises the impact of the global financial crisis of 2008 on Indian and Chinese firms. Lastly, a probable linkage between executive compensation and EVA as a financial performance benchmark has been explored.

In addition to estimating the proportion of firms, which are profitable (positive net income) but post negative EVA, the study employs panel regression method to test the significance of EVA and paired sample *t*-test to appraise the impact of financial crisis. These analyses are based on secondary data and are performed on total as well as disaggregated samples to explore the influence of industry characteristics, size and age of the firms. Mixed method research is adopted to explore the potential of EVA as an executive performance benchmark. The outcomes from a quantitative analysis of survey data collected through questionnaire from senior HR / Finance executives is complemented with the content analysis from personal interviews of top HR executives of select Indian firms. Further, some of the key advisors to policymakers (Institute of Chartered Accountants of India and Ministry of Corporate Affairs) have been interviewed to obtain their views on certain policy related issues identified as a result of corporate survey.

The comparison of EVA with EAT establishes the pseudo profitability characteristics of EAT and EVA emerges not only as a credible measure of current performance but also a significant indicator of corporate outlook for India and China. The panel regression analyses do not find EVA to be superior to conventional measures (for total and disaggregated samples). However, EVA in conjunction with conventional measures has been observed to significantly enhance their explanatory powers, conspicuously establishing its value relevance.

Further, Indian and Chinese industries seem to have withstood the impact of global financial crisis and even yielded improved performances. Although, the capital intensive industries like energy and utilities, and materials have suffered a relatively larger setback in both the countries.

More importantly, the analyses posit EVA to be a superior indicator of corporate performance as it captures the unsystematic as well as systematic risks associated with the firms.

Lastly, the survey results establish the dominance of conventional financial measures as executive performance benchmarks. In addition, computational complexities and the number not being audited or reported have been recognised as the primary hurdles in using EVA. Corporate respondents observe merit in using EVA but refrain from using it till the time it finds its ways into the audited financial statements. On the other hand, policymakers prefer the optional disclosure route to financial statements for EVA; cite involvement of many intangibles in computation of EVA making it difficult to standardise.

In view of the research findings, it is recommended that the management should endeavour to adopt EVA aligned performance management system; the long term benefits well surpass the implementation challenges. Moreover, the fund managers / brokers should create awareness on EVA amongst retail investors via the investor education programmes; it will help the euphoria around profitability to subside. Finally, the policymakers need to standardise computation of EVA and assign its due space in corporate financial statements. This step is particularly important from the point of retail investors who have little say in the company's management; given the fact that EVA is a direct and absolute measure of shareholders value.

परंपरागत लेखांकन आधारित कॉर्पोरेट, प्रदर्शन उपायों के प्रभुत्व को मूल्य आधारित उपायो, विशेष रूप से आर्थिक मूल्यवर्धित – ईवीए (स्टीवर्ट 1991) के पक्ष में चुनौती दी गई है। विवाद यह है कि लेखांकन लाभांश वाली कंपनियां वास्तव में शेयरधारकों के धन को खराब कर रही हैं अगर वे शेयरधारकों के धन, छद्म लाभप्रदता की लागत को कवर करने के लिए पर्याप्त कमाई नहीं कर रहे हैं। इसके अलावा, अलग-अलग लक्ष्यों और प्रबंधकों और शेयरधारकों (एजेंसी मुद्दे) की जोखिम वरीयताओं से उत्पन्न ब्याज का संघर्ष प्रदर्शन माप और प्रबंधन में डिचोटोमी बनाता है। नतीजतन, एक प्रदर्शन बेंचमार्क के लिए एक बारहमासी खोज है जो कार्यकारी प्रदर्शन, उद्यम मूल्य और रणनीतिक सोच को सबसे अच्छी तरह से जोड़ती है; ईवीए संरेखित प्रदर्शन प्रबंधन प्रणाली को फर्म के मूल्य को अधिकतम करने और लक्ष्य एकरूपता सुनिश्चित करने के लिए सबसे विश्वसनीय साधन माना जाता है (स्टर्न एट अल। 1 99 6) ।

साहित्य शेयरधारकों के धन/फर्मों के मूल्य का अनुमान लगाने में परंपरागत लेखांकन आधारित उपायों पर ईवीए की श्रेष्ठता पर विविध राय प्रस्तुत करता है। बड़ी संख्या में अध्ययन ईवीए को प्रबंधकीय प्रदर्शन का चालक मानते हैं, न केवल एक वित्तीय प्रदर्शन उपाय। असल में, कई अध्ययनों को मूल्य निर्माण पर महत्वपूर्ण प्रभाव रखने के लिए ईवीए नहीं मिला है। इसके अलावा कुछ अध्ययन बताते हैं कि ईवीए संरेखित प्रदर्शन प्रबंधन प्रणाली के लाभ इसके कार्यान्वयन में शामिल लागत/ प्रयासों के अनुरूप नहीं है। इसके अलावा, साहित्य ईवीए का उपयोग वित्तीय प्रदर्शन बेंचमार्क के रूप में करने या न करने के विभिन्न कारणों को निर्दिष्ट करता है।

विविध और बहस योग्य परिणामों को ध्यान में रखते हुए, वर्तमान अध्ययन का उद्देश्य अंतर्राष्ट्रीय कोण (भारत बनाम चीन) को लाकर इस मुद्दे की जांच करना है, जबकि अनुभवी रूप से शेयरधारकों के संपत्ति निर्माण में पारंपरिक वित्तीय उपायों पर ईवीए के महत्व की जांच करना। चीन को तुलना के लिए चुना गया है, क्योंकि भारत और चीन बड़ी आबादी और इसी तरह के जनसांख्यिकी के साथ सबसे तेजी से बढ़ती एशियाई अर्थव्यवस्थाएं हैं, समकालीन प्रतिद्वंद्वियों और सबसे एशियाई निवेश स्थलों। इसके अलावा, अध्ययन भारतीय और चीनी फर्मों पर 2008 के वैश्विक वित्तीय संकट के प्रभाव को मूल्यांकन करता है। अंत में, वित्तीय मुआवजे और ईवीए के बीच एक वित्तीय प्रदर्शन बेंचमार्क के रूप में एक संभावित जुड़ाव की खोज की गई है।

फर्मों के अनुपात का आकलन करने के अलावा, जो लाभदायक (सकारात्मक शुद्ध आय) हैं लेकिन नकारात्मक ईवीए पोस्ट करते हैं, अध्ययन ईवीए के महत्व का परीक्षण करने के लिए पैनेल रिग्रेशन विधि को नियोजित करता है और जोड़ा गया नमूना टी-टेस्टो वित्तीय संकट के

प्रभाव का मूल्यांकन करता है। ये विप्लेशन द्वितीयक डेटा पर आधारित होते हैं और उद्योग की विशेषताओं, आकार और फर्मों की आयु के प्रभाव का पता लगाने के लिए कुल मिलाकर पृथक नमूने पर प्रदर्शन किए जाते हैं। कार्यकारी प्रदर्शन बेंचमार्क के रूप में ईवीए की क्षमता का पता लगाने के लिए मिश्रित विधि अनुसंधान अपनाया जाता है। वरिष्ठ मानव संसाधन/वित्त अधिकारियों से प्रश्नावली के माध्यम से एकत्र किए गए सर्वेक्षण डेटा के मात्रात्मक विप्लेशन से परिणाम चुनिंदा भारतीय फर्मों के शीर्ष मानव संसाधन अधिकारियों के व्यक्तिगत साक्षात्कार से सामग्री विप्लेशन से परिणाम चुनिंदा भारतीय फर्मों के शीर्ष मानव संसाधन अधिकारियों के व्यक्तिगत साक्षात्कार से सामग्री विप्लेशन के साथ पुरक है। इसके अलावा, नीति निर्माताओं (भारत के चार्टर्ड एकाउंटेंट्स संस्थान और कॉर्पोरेट मामलों के मंत्रालय) के कुछ सलाहकारों का साक्षात्कार कॉर्पोरेट सर्वेक्षण के परिणामस्वरूप पहचाने गए कुछ नीतिगत मुद्दों पर उनके विचार प्राप्त करने के लिए किया गया है।

ईएटी के साथ ईवीए की तुलना ईएटी और ईवीए की छद्म लाभप्रदता विशेषताओं को स्थापित करती है न केवल वर्तमान प्रदर्शन के विश्वसनीय माप के विश्वसनीय उपाय के रूप में बल्कि भारत और चीन के लिए कॉर्पोरेट दृष्टिकोण का एक महत्वपूर्ण संकेतक भी उभरती है। पैनल प्रतिगमन विप्लेशन पारंपरिक उपायों (कुल और पृथक नमूने के लिए) से बेहतर होने के लिए ईवीए नहीं ढूंढता है। हालांकि, परंपरागत उपायों के संयोजन के साथ ईवीए को उनकी व्याख्यात्मक यशक्तियों को काफी हद तक बढ़ाने के लिए देखा गया है, जो कि इसकी मूल्य प्रासंगिकता को स्पष्ट रूप से स्थापित करते हैं।

इसके अलावा, भारतीय और चीनी उद्योगों ने वैश्विक वित्तीय संकट के प्रभाव को रोक दिया है और यहां तक कि बेहतर प्रदर्शन भी किया है। फिर भी, दोनों देशों के लिए वैश्विक वित्तीय संकट के कारण ऊर्जा और उपयोगिता जैसे पूंजीगत उद्योगों और सामग्रियों को अपेक्षाकृत बड़ा झटका लगा है। सबसे महत्वपूर्ण बात यह है कि विप्लेशन ईवीए को कॉर्पोरेट प्रदर्शन का बेहतर संकेतक मानते हैं क्योंकि यह अनिश्चितता के साथ-साथ फर्मों से जुड़े व्यवस्थित जोखिमों को भी पकड़ता है।

अंत में, सर्वेक्षण के परिणाम कार्यकारी प्रदर्शन मानकों के रूप में पारंपरिक वित्तीय उपायों का प्रभुत्व स्थापित करते हैं। इसके अलावा, कम्प्यूटेशनल जटिलताओं और ऑडिट/रिपोर्ट किए जाने वाले नंबर को ईवीए का उपयोग करने में प्राथमिक बाधाओं के रूप में पहचाना गया है। कॉर्पोरेट उत्तरदाता ईवीए का उपयोग करने में योग्यता का निरीक्षण करते हैं, लेकिन जब तक यह लेखापरीक्षित वित्तीय विवरणों में अपना रास्ता नहीं मिलता तब तक इस का उपयोग करने से बचें। दूसरी ओर, नीति निर्माता ईवीए के लिए वित्तीय विवरणों के लिए वैकल्पिक प्रकटीकरण मार्ग पसंद करते हैं; ईवीए की गणना में कई अंतरंगों का उद्धरण शामिल करना मानक बनाना मुश्किल है।

शोध निष्कर्षों को ध्यान में रखते हुए, यह अनुषंसा की जाती है कि प्रबंधन को ईवीए गठबंधन प्रदर्शन प्रबंधन प्रणाली को अपनाने का प्रयास करना चाहिए, दीर्घकालिक लाभ अच्छी तरह से

कार्यान्वयन चुनौतियों को पार करते हैं। इसके अलावा, निधि प्रबंधकों/दलालों को निवेशक शिक्षा कार्यक्रमों के माध्यम से खुदरा निवेशकों के बीच ईवीए पर जागरूकता पैदा करनी चाहिए; यह कमजोर पड़ने के लिए लाभप्रदता के आसपास उत्साह की मदद करेगा। अंत में, नीति निर्माताओं के ईवीए की गणना को मानकीकृत करने और कॉर्पोरेट वित्तीय विवरणों में अपनी उचित जगह आवंटित करने की आवश्यकता है। यह कदम छोटे खुदरा निवेशकों के बिंदु से विशेष रूप से महत्वपूर्ण है जिनके पास कंपनी के प्रबंधन में थोड़ा सा ही कहने के लिए है; इस तथ्य को देखते हुए कि ईवीए शेयरधारकों के मूल्य का प्रत्यक्ष और पूर्ण उपाय है।

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ABBREVIATIONS

BSE	Bombay Stock Exchange
EAT	Earnings after Tax
EPS	Earnings per Share
EVA	Economic Value Added
GAAP	Generally Accepted Accounting Principles
GDP	Gross Domestic Product
HR	Human Resources
ICAI	Institute of Chartered Accountants of India
MOCAI	Mistry of Corporate Affairs, India
MVA	Market Value Added
NOPAT	Net Operating Profit after Tax
NSE	National Stock Exchange
ROCE	Return on Capital Employed
ROE	Return on Equity