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Putting the human into human capital

A human capital index based on competences

A thesis presented in partial fulfilment of requirements for the degree of

Doctor of Philosophy
Human Resource Management

Massey University
Palmerston North
New Zealand

Heather Lees
2003



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Abstract

The world of work is increasingly more global and knowledge-based and there is a developing awareness of the importance of human capital. An individual's performance against a comprehensive competence profile will capture, I suggest, the substance of human capital. A review of existing theories and measures directly or indirectly associated with measuring the value of people in the workplace reveals a gap. There has been no simple measure that captures the substance of human capital.

A human capital measure was developed in an attempt to address this omission. Various procedures and concepts from the literature were initially tested in a pilot case study in an engineering firm. From this an original human capital index measure was developed and applied in subsequent case studies. The human capital index is derived from the performance ratings of competences which are correlated with productivity measures. Nordhaug's (1993) typology provided a consistent framework for job role coverage, in competence profiles that either already existed or more commonly, were developed during this research. Performance scores for competences were gathered through 360-degree feedback. Productivity measures were specific to each case study. This human capital index was developed with and applied to seven samples in five organisations: customer service representatives and customer service officers in a bank, two groups of lawyers, managers in a supermarket, engineers in the armed forces and technicians in the gaming industry.

There were very strong correlations between the human capital indexes and organisational productivity results for several of the samples. Against these same productivity measures the OECD measure of human capital (equivalent years of tertiary education) correlated weakly.

This study contributes to the constructs of competences and productivity and their relationship in a human capital measure. It also describes a case study process for human capital measure development and raises issues of human capital measurement acceptability. Results suggest that under certain conditions an human capital index based on competences is feasible as a human capital measure; although it involves a number of subjective processes and is organisation specific. Further development and areas of research are suggested.

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Applied research in workplace settings cannot happen unless you have a contact person and staff who agree to participate. I am very grateful to those people in the bank, law firm, defence organisation, supermarket and gaming organisation for supporting my studies including over two hundred staff who consented to participate in the 360-degree feedback process. Thank you for your involvement. My pilot case study contact person deserves a special mention. Using his staff data he was the first to allow me to explore the development of a human capital index. The pilot report was a very helpful in convincing other companies to participate.

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List of Abbreviations

ASTD	American Society of Training and Development
BA	Bachelor of Arts
BCA	Bachelor of Commercial Accounting
BCom	Bachelor of Commerce
BMgt	Bachelor of Management
CSR(s)	customer service representative(s)
CSO(s)	customer service officer(s)
ECP	existing competence profile
ECPs	existing competence profile lawyers
EVA	economic value added
GNVQs	General National Vocational Qualifications
HCI	human capital index
HCIW	weighted human capital index
HCMV	human capital market value
HC ROI	human capital return on investment (Deloitte & Touche)
HCVA	human capital value added
HR	human resources
HRA	human resource accounting
HRINZ	Human Resource Institute of New Zealand

HRM	human resource management
HR&T	human resource and training (manager)
IIP	Investors in People
ISS	In-service support (engineers)
KPIs	key performance indicators
LC	Lieutenant Commander
LLB	Bachelor of Law
MHRI	manager human resource information
NCP	new competence profile
NCPs	new competence profile lawyers
NES	National Employee Survey
NIESR	National Institute of Economic and Social Research
NQF	National Qualification Framework
NVQs	National Vocational Qualifications
NZCE	New Zealand Certificate in Engineering
NZQA	New Zealand Qualification Authority
OECD	Organisation for Economic Co-operation and Development
O/O	owner/operator
OPDEF	operational defect
ROsCE	Return on skill capital employed
ROI	return on investment

ROI _w	Return on investment workplace index (Davenport)
sAUR	skill asset utilisation ration
SHRM	strategic human resource management
SIG	special interest group
SOSPP	staff officer, strategic planning
SPSS	statistical package for the social sciences
SOSPP	staff officer strategic personnel planning
YTD	year-to-date