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Submitter	Peter Pease
Place of work/study	Northumbria University
Type	Interactive Paper (MSc/PhD)
Category/Strand	Changing Organisations
Title	Towards A Multi-Level Model of Performance
Authors and place of work/study:	Peter Pease , Psychology Department, Northumbria University
Summary	<p>Performance is arguably the most important dependent variable in Occupational Psychology (OP) but the way performance is measured in most OP studies fails to meet the evidence needs of business decision makers. This study systematically reviews performance evidence from 178 research papers across the discipline and suggests a multi-level model of performance based on a value added activity which takes into account individual performance and organisational performance measured in financial terms.</p>
Body	<p><b>Introduction</b></p> <p>This interactive paper is aimed at DOP members who have an interest in demonstrating the financial impact of theory and practice on individual and organisational performance. It has been written to stimulate debate and, whilst a proposed way forward is suggested, it is not claimed that this is definitive or without its own limitations.</p> <p>Business managers face a bewildering array of different ways to invest resources in people initiatives such as, increasing the range of HR services provided, investing in wellbeing interventions, developing competencies, using psychometrics, training or reducing psychological contract breach. Although every BPS Occupational Psychology MSc covers the eight core areas it appears that it is not possible to compare the relative merits of different types of interventions or constructs</p> <p><b>Individual Performance</b></p> <p>Rojon, McDowall and Saunders' (2011) systematic review of Individual Workplace Performance finds a preponderance towards competency models in OP but the notion that 'performance is behaviour' seems to this author to be conceptually and well as semantically flawed. Englert, Jackson, &amp; van Gelderen (2011) find no evidence for the criterion validity of competency models and suggest that they are little more than useful semantic descriptions whilst Markus, Cooper-Thomas &amp; Allpress (2005) report research which shows little evidence for criterion validity, construct validity or predictive validity of behavioural competency models.</p> <p>Viswesveran(1993)'s seminal meta-analysis on individual performance which proposes a single underlying factor of performance and suggests dimensions such as productivity, effort, leadership and overall job performance which are criticised by Robertson and Smith (2001) as being both tautological and vague.</p> <p>Various other individual performance conceptions exist but the problems of reliable objective measurement pervade them all, as well as further confusion created by using relative terms like proximal and distal which mean different things in different studies.</p> <p><b>Organisation Performance</b></p> <p>Business success is measured primarily in financial terms (Neely, 2007) and although the need for non-financial performance measures is accepted in some business performance models such as the balanced score card (Kaplan &amp; Norton, 1996) a common criticism is that research tends to find no significant relationship between non-financial and financial measures with the possible exception of customer satisfaction measures (Meyer, 2002).</p>

Guest (2010) describes the UK workplace Employee Relations Survey which provided a multi-level model of the relationship between practices, financial outcomes and some possible intermediate affective states and although he points to various weaknesses in the model it does seem to provide a meaningful framework.

#### Financial Performance

According to Neely (2007) there are 50,000,000 websites dedicated to performance measurement and although it is not possible here to summarise all of the literature one model which will be picked up on later in the document is discussed.

Meyer (2002) suggests several criteria for the perfect business performance measurement system: 1. It would have as few as six measures, three financial and three non-financial to ensure focus and avoid cognitive overload; 2. Non-financial measures would predict financial performance and those that did not would be dropped; 3. The measures would apply at all levels of the organisation; 4. The measurement system would be stable and measures would evolve slowly. He goes on to describe how different the reality is due to a number of problems: there are too many measures in all businesses, most of the non-financial measures do not predict financial performance, with the possible exception of customer satisfaction; most of the measures are in a state of flux and tend to lose their variance and ability to differentiate over time. He then suggests an alternative model which is that the firm should be viewed as bundle of activities which generate value and that all performance measures should be stated in terms contribution to adding value or reducing waste.

#### **Rationale**

Through the course of the taught components of the Occupational Psychology MSc the author developed a perception that a serious issue for OP is that the evidence generated in OP studies is not really that useful to business decision makers because of the research designs and types of evidence generated. Because that perception may well be biased it was decided to systematically review all of the papers read in depth during the course of the MSc and from the 2012 DOP conference abstracts. Clearly every MSc will be different, although the BPS approval process requires core elements which need to be covered, and the papers which each student reads will also depend on assignment choice and personal preference.

#### **Methodology**

The sample consisted of 354 papers read in depth during the course of the MSc and DOP conference 2012 abstracts. Those that did not suggest or imply implications for practice were excluded. This took the sample down to 178 papers. An initial review of the papers was conducted and the following classification created:

Not Quantitative or no implications for performance, for instance ethnographic studies or measuring constructs with no performance dimension.

Indirect performance measure, for instance measuring affective outcomes or OCBs

Direct Non-Financial Individual Performance Measure(s) – subjective

Direct Non-Financial Individual Performance Measure(s) – objective

Direct Financial Individual Performance Measure(s)

Measure(s) of organisational impact – non financial

Economic impact measure given in introduction

Economic impact measure derived from research

Meta- analyses were not included but will be discussed separately.

#### **Results**

The analysis proved to be much more complex than was originally envisaged with almost as many subtle variations in what researchers measured, and how they measured it, as papers reviewed, which perhaps illustrates the difficulty in comparing results, as well creating questions about how evidence can be meaningfully combined in systematic reviews or meta analyses.

Detailed results will be presented at the conference which will give a further breakdown by subject types but the key findings were,

9 papers out of 178 (5.1%) described direct financial measures and of these 7 were measuring sales.

5 papers (2.8%) measured impact at individual and organisational levels and of these 2 measured organisational impact in financial terms. Of the 87 papers which had performance related measures 65 (74.7%) used subjectively measured ratings of either performance or indirect measures such as employee satisfaction.

4 papers (2.2%) described macro-economic costs in the introduction based on economic modelling. Psychological Capital research provides the most consistent attempt to measure financial impact and this will be presented in some detail because it illustrates the difficulties which face any cross sectional attempts to measure the impact in financial terms, with studies ranging from the use of four item self-ratings of performance to estimates of billions of dollars of impact if psychological capital could be increased by modest amounts.

### **Discussion**

The lack of useable evidence from the limited sample selected is perhaps not surprising but it does illustrate the problem which the discipline faces. All ways of measuring performance have difficulties but unless academic OP starts to attempt to measure performance in financial terms it is unlikely that the gap between academia and practice will be narrowed.

It is never going to be possible to gain hugely meaningful data from cross sectional designs but the transitory nature of researchers' appointments and funding mean that developing the long term relationships with employers needed should be undertaken at the institutional level. Long term symbiotic research relationships at the institutional level with a small number of global companies would provide the opportunity to develop the types of metrics needed to conduct meaningful research. Meyer's activity based performance model could provide a meaningful starting point combined with the value stream mapping methodologies proposed by Womak and Jones (2004) which this author has previously used in a broad range of settings including manufacturing, call centres, NHS settings and professional services.

In working with research partner employers the first step must be to see if existing metrics can be used but if those metrics have little relationship with financial metrics (for instance most competency models) then a process of value stream mapping should be undertaken. At its most basic level this involves breaking down the processes in the sample group into activities which will either be adding value (defined in this case as what the customer is paying for) or waste (activities which provide no value for the customer). The impact of interventions or relationships with constructs being investigated should then be measured in these terms and financial values ascribed.

A more detailed description of how to do this will be given during the presentation and it is not without its challenges but if used it would, over time, be refined. If we take the psychological contract as an example, the question we could ask is whether or not trying to measure the impact of psychological contract breach on the value added, or waste created of a department or individual employee would be more meaningful than measuring the emotional impact of breach.

By creating financial impact measures at all levels and across all disciplines meaningful multi-level modelling could be carried out which could measure the impact of interventions and constructs at different levels within the organisation in financial terms.

### **The Author**

Peter Pease read psychology at Durham, graduating in 1987. From 1987 to 2010 he created and grew a number of businesses in recruitment, vocational education and training, the largest of which was prepared for an IPO on the London Stock Exchange in 2007 before being sold to external investors. He is currently an MSc student at Northumbria.

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