

# Considerations when using international indices in disruption claims

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**S**OUTH AFRICA provides diversity in life and in the workplace. The claims, like the people and the culture, are many and varied. These range from damage to equipment, delayed access, food, accommodation — all the usual suspects that you'd expect to find. Primarily these are straightforward issues; address the quantum, check the notice, review the determination.

However, whilst these claims are relatively simple in the context of agreement, never far from a dispute are disruption and productivity in South Africa. A recent claim from a contractor for a total costs claim for the recovery of disruption and loss of productivity relied on the data from a study in the USA. The contractor decided that the data dealt with the demotivating factors attributable to disruption and lack of productivity in the USA and was comparable with the South African labour market.

Researching the paper demonstrated that the data was gained from questionnaires that had been sent to various companies. The contractor decided that this was appropriate to provide a means of valuing disruption and lack of productivity in

South Africa. Claims in the UK can provide an understanding of planned outputs from programming and costing purposes and establish a baseline comparable for such an assertion.

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## The applicability of indices to disruption and lack of productivity claims

### Data

The contractor relied on the data contained in the research for the explanation, and in part the examination, of its disruption claims. The use of such a method may have provided the adjudicator with some assistance in reviewing the entitlement of the contractor's claims, however, the data was flawed and incorrectly applied.

The contractor asserted that this was a correct method for calculating disruption in South Africa and considered itself exempt from providing any of the following more useful data:

- Recognition of what is comparable between the two industries.
- Comparable tables of planned outputs for specific operations.
- Baseline data or indices that substantiate that the two countries have comparable markets and similar outputs.
- Examination of the planned outputs.
- Examination of inclusions that demonstrate statutory, legislative and local effects on the planned outputs.
- Cognisance of local factors within the planned outputs, i.e. unforeseen matters such as strikes, commotions and riots (all of which are prevalent in South Africa).

Had the contractor provided a baseline to its planned outputs, then a comparable list of factors could have possibly been

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drawn. Instead the data remained open to criticism, including:

- The document was produced as a dissertation for a PhD in the USA.
- The data related to a study of a single trade.
- The study was limited by its own admission and therefore had no direct applicability to other trades and/or countries. The study itself stated *“this research study is therefore intended to be a reference, which may require modifications based on other sources including historical databases, other research studies, industry wide studies or experts.”*
- The study has listed 16 major fields of disruption but the contractor made no attempt to identify the causes of its loss or demonstrate their causal link to the effect.
- The study used a questionnaire, as most dissertations do, to examine fields of disruption. The contractor had not undertaken similar research and therefore relied on its entitlement being substantiated by questionnaires in the USA (the site was 14,987km away).
- The contractor asserted that morale was low due to the imposition of instructions that disrupted the work.
- The contractor relied on the fact that shared access was a cause of low morale when the shared access was a contractual agreement and not a change.
- The contractor endeavoured to provide a calculation of disruption based on compounding the percentage used from the index, ultimately reducing its 70% calculation to 20%.
- The contractor's calculation was based on the index and not on its costs, why did it even use the index and not provide costs? Is it not simpler to provide cost substantiation to demonstrate losses against planned outputs?
- The contractor did not evidence a deduction of planned costs against actual costs.
- The contractor failed to link any causal effects with that of the resulting effect and the costs. The basis of this monetary claim provided no analysis or linkage of disruptive events and

instructions to the contractor's actual costs.

- The contractor assumed that its tender outputs were efficient, if inefficiencies existed they would alter the basis of entitlement.
- The big issue in the use of such an index is human factors. The American workforce, being ‘sophisticated’ is likely to be more agile and consider ways of overcoming disruption without affecting productivity. The South African workforce may be unmotivated and more likely when disrupted to stand around waiting for the situation to improve and not to self-actualise and minimise or mitigate the effects of a disruptive element. If the American factors are statistically sound, then a particular set of events for the South African workforce would cause more disruption than to their American counterparts.

A citation of the Society of Construction Law Delay and Disruption Protocol is relevant, because at 1.19.8 it does say productivity curves and factors may be acceptable but must be on a like for like basis. The construction industry of the USA is not like for like with that of South Africa. One might argue that the data used in the production of the factors does not come from similarly ‘sophisticated’ workforces and is therefore not comparable.

The application of indices is clearly a difficult field and given that the American index used is not recognised in the construction industry and has provided no basis for a test at law, it should be rejected. An effective test of the data could be performed by using Leonard and Ibbs curves which use data not just from America. The contractor failed to provide any other evidence and it is contended that, based on the rest of the world, the South African disruption is liable to be conservative in favour of the employer.

### Burden of proof

The burden of proof is upon the contractor to provide sufficient details to enable an adjudicator to carry out its duties. This calculation provided no evidence and prevents an adjudicator from accurately assessing this element of a claim. Unless

and until actual contemporaneous records and substantiation could be provided, no meaningful assessment could be carried out and as such the claimed amount would be rejected.

In reviewing the data it is important to consider the productivity levels of the South African market. Is the lack of productivity an issue whilst there are no events causing disruption? The answer may be yes, a lack of productivity is almost inherent within a project and it is the employer who suffers or a cost that the contractor bears.

Does a plasterer in South Africa apply the same square metre of plaster skim to a partition as that in the USA or UK? Does a joiner in South Africa apply the same linear metre of skirting as a joiner in the USA or UK? In considering the outputs it is important to consider the rates applied within a contractor's tender: Using the example above:

A USA plasterer applies 52m<sup>2</sup> of plaster skim per day, the labour rate used is \$3.07 per m<sup>2</sup>.

A UK plasterer applies 44m<sup>2</sup> of plaster skim per day, the labour rate used is £2.50 per m<sup>2</sup>.

Importantly, we are saying that a qualified plasterer can apply approximately 45m<sup>2</sup> of plaster skim per day.

The test of this would be for either or both to carry out a day's plaster skim in South Africa and we measure what productivity levels they achieved.

However, this would suggest a labour rate of £2.75 per m<sup>2</sup> is applied to the tendered rates, which plus material, overhead and profit (plus any site preliminaries), would give an outturn cost of say £5.00 per m<sup>2</sup>.

How does that work in South Africa as a rate? The problem being that the productivity in the South African labour market continues to drop because of the labour. The rate is probably correct, the output is probably correct but it is the productivity that causes issue. Therefore are the tender rates and outputs wrong?

In reviewing a number of contractors' programmes from project data (either submissions on new schemes or existing) there were anomalies in the productivity levels included by planners in South Africa — an example being a two day activity for the construction of 5m deep manholes on a sewerage scheme.

The example suggests a lack of knowledge in planning outputs, but came from a major contractor, has this output been calculated before or after a loss of productivity factor?

### The Ardcorp report

A report from the Ardcorp Group (South Africa's largest outsourcing provider of human resources) caused much consternation in the South African economy when it provided a method of measuring productivity. The report showed that since 1967 labour productivity has fallen from R7 297 to R4 924 a year, which is a decline of 32.5%. From the 1993 peak, labour productivity has fallen by a steep 41.2%.

*"The problem with the output-per-worker definition of labour productivity is that output is not only produced by workers. Other factors of production, such as land, capital and entrepreneurship are omitted from the definition. It was suggested that a better procedure... would be to standardise the output-per-worker measure by the amount of capital used in the production process, which yields output per worker, per unit of capital. It is suggested that such a procedure would yield a completely different perspective on South African labour productivity. Since 1967, output per worker per unit of capital has fallen from R7 297 to R4 924 a year – a decline of 32.5%. From the peak in 1993, this measure of labour productivity has fallen by 41.2%. This measure at least explains why the South African economy's labour intensity is falling and returns on capital are rising and why labour's share of national income is at an all-time low while capital's share is at an all-time high."*

The issue for contractors is that they almost require disruption to recover the costs of falling productivity but then how can they prove this if their own bid is wrong?

If we were to take a retrospective view of when the contractor is performing without disruption by using the measured mile principle then it could be apparent that productivity is lower than it should be. In the analysis after an employer event, it is easier to

see this and assert that this is evident of the disruption caused by an employer event, but how much should the employer pay for and how?

In the final analysis, claims will arise in South Africa and will cause disruption. When this causes a lack of productivity, how does a claimant measure it? Should a costing system with the appropriate level of sophistication be developed or should the approach of total claims be used? Is there a need to establish a unique indices for the South African labour market that encompasses the net effects of the demoralising factors causing lack of productivity upon receipt of an employer event?

Whatever the solution there is a vast area of cost that is becoming evident due to a lack of productivity. This is either being clumsily bundled into disruption claims or being paid for by the contractor and reducing its bottom line. The issue clearly requires greater research and understanding.

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