

## Working Paper:

### CUTTING INTO MANAGEMENT WITH OCKHAM'S RAZOR

#### Managers and Judgement.

Managers bring more than just a toolbox of methods and techniques to their work. It is the nature of management that they must also make decisions about interpreting complex organisational and people issues, about what constitutes problems and how to deal with them, about what information needs exchanging and about how to obtain the results required. They have to develop a managerial style that persuades people to work well for them as well as with them.

Taken together, these matters of judgement contribute significantly to the craft of management, and determine how an individual manager is perceived in regard to competence and personality. As a person who makes decisions in situations in which there are conflicting views, often limited information and multiple agendas the manager could be considered as a “judge” in enterprise operations.

Much of the knowledge and skill needed to make good decisions in management is learned through personal experience and interaction with other managers and workers. Many of the intangible influences on management operation – intuition, creativity, innovation, power – largely defy rational analysis, yet they are among the tools that managers bring to their work when making judgements. The outcomes of these judgements indicate the quality of those judgements and that quality relates to the way in which problems and decisions are tackled.

#### Ockham's Razor.

Of particular interest in this judgement arena is the life and work of William of Ockham who was born in the village of Ockham in Surrey, England, in about 1285. There is much information about him under his name on various internet web sites. A summary of this information tells us that William, a Franciscan, studied and taught at Oxford from circa 1310 until 1324 when he was summoned to the papal court at Avignon to answer charges of heresy in his writings. After four years when it seemed as though he would finally be condemned he fled to Munich under the patronage of Ludwig of Bavaria. The common belief is that he died around 1348, a victim of the Black Death.

He employed one of his most popular theorems, the Razor, to eliminate many false foundations of the church. Ockham's Razor, or the Principle of Parsimony as it is also known, generally states that *irrelevant detail should be cut away so that the simplest possible explanation of an entity remains*. Other forms of the Razor are:

- \* Plurality should not be assumed without necessity.
- \* What can be done with fewer assumptions is done in vain with more.
- \* One should not complicate explanations when simple ones will suffice.
- \* Entities should not be multiplied without necessity.
- \* The most economical theory will fit all the facts.

Although the principle was not unknown before Ockham enunciated it ( Aristotle for example said that “nature operates in the shortest possible way”) it has come to be closely associated with him. In essence the Razor says that the simplest of two or more competing theories is preferable and that an explanation for unknown phenomena should first be attempted in terms of what is already known.

The Razor is a logical tool used to cut absurdities out of arguments and philosophical systems. There are notions that get a lot more credibility than they deserve, simply because someone overlooked the minor flaws in the argument, system or research.

As we study the history of ideas the pattern becomes clear. Great fundamental truths ultimately win the day because no convoluted argument is needed to prop them up.

On the other hand, flawed logic never ceases to test the ingenuity of its proponents in finding ever more complicated ways to prove the impossible.

The Razor does not mean we should always choose the simplest explanation but it advises us against explaining the unknown by inventing things that are themselves unexplained.

Ockham also claimed that you could not find out about the world by just sitting and thinking. Reason alone could prove nothing: you had to deal with things you could observe and experience – and experience on the experience of individual things. He was an empiricist and believed that things could not be understood naturally unless they could first be understood intuitively. He insisted that valid reasonable explanations had to be based upon simple, observable facts, supplemented by logic. He refuted the scholastic philosophers like Thomas Aquinas who treated universal concepts such as “good” and “great” as real independent entities. They argued, closely following Plato, that if we call both a pine and an oak “trees” then there must exist some real thing called “treeness” that they both share and which is a universal attribute. Ockham considered this “realism” or “universalism” as nothing more than nonsense. The idea that abstractions should be afloat in the world divorced from objects was simply false and absurd. According to Ockham, it is a mistake to treat a mere name as a reality rather than just a description. This contrary idea, that names are just names, is called “nominalism”.

The acceptance of such conditions results in not being able to either simply assume, for example, that God exists or scientifically prove that God exists – but Ockham, even though a theologian, was willing to accept that consequence. In his mind theology was one thing – a matter of revelation – and science was quite another – a matter of discovery. (This approach is why Ockham got into trouble with papal authority.)

Everything that exists is particular; relations amongst these particulars is purely conceptual. Only concrete individual substances and their particular features are real for Ockham: all else is manufactured by the human mind.

### **Managers and The Razor.**

What do the Razor and nominalism mean for managers?

We cannot oversimplify a complex world but we can avoid adding more complexity by explaining that world in unnecessarily complex ways.

Thus the Razor can be used by managers to prevent them getting too involved in judgements and answers that result in confusions and complications which exacerbate rather than alleviate the issues and problems being tackled.

We cannot look at two people who are sound leaders and assume that the concept of leadership that we generate is a real entity. After many such observations and conceptualisations we will inevitably generate a complex concept of leadership. The next person we observe in a leader position may or not exhibit the concept thus generated.

We cannot apply the universal to our new leader as a measure of his or her possible leader success. Ockham would say that we must observe the individual and apply

subjective judgement in deciding whether the behavioural result in that situation with those people demonstrates that the individual is a leader.

The Razor can be applied in most management situations involving the application or understanding of what managers do: motivate, communicate, plan, organize, control.

Thus analysis and judgement in any situation should make reference to existing entities only when the features at issue cannot be explained in any other way.

Leadership, communication, motivation and the like cannot be divorced from the object being referred to – the leader, the communicator, the motivator.

In the organisational world, managers are being increasingly bombarded with new theories, methods and techniques which the originators claim offer new hope in the struggle to make sense of that world and to get it to work more efficiently and effectively.

Ockham's Razor should be used to cut and slice through these "new Jerusalems" in order to identify false logic and convoluted argument. In many cases the astute experienced manager, with comprehensive knowledge of the context in which he or she is operating, has more chance of developing answers to specific problems than a small army of "gurus" with a universal answer.

The principle of parsimony is encapsulated in the modern advice to managers to "keep it simple stupid" (the KISS acronym) but some knowledge of the origins of this advice can make its application more useful. The Razor has had its main use in scientific method but its application to management judgement could produce similar results in preventing complex issues becoming more complex and the attempted application of universal solutions in particular cases.

**Professor Roger Smith,  
University of Western Australia,  
30/8/2001**