
Eight Ways the Military Manages Uncertainty



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From managing and structuring information to fostering internal learning and smooth communication, the military holds lessons for businesses operating in uncertain environments.

The military has developed efficient methods for operating in uncertain environments. Armies typically operate in two main modes: risk management in peacetime and uncertainty management in wartime. The two modes enable structure and organisation in times of peace and agility in times of conflict. In peacetime for example, strictly following protocols can keep units safe and organised, avoiding unnecessary injuries or accidents, but while in conflict situations, decision-making is distributed and flexibility is given soldiers to give them agility and effectiveness.

Generals are typically managers in peacetime and leaders in wartime. In the uncertainty and messiness of a war zone, they deploy two main methods to operate as smoothly as possible; information-based solutions and action-based solutions.

Knowledge is power

When deploying information-based systems, the army converts uncertainty into risk, transforming “unknown unknowns” into “known unknowns”. This is done by first **filtering** information. Where once obtaining data was the main challenge, advanced technology means information is now in abundance and coping with it is the problem.

The military has developed a clear 4-step process for filtering information: direction, collection, analysis and dissemination. Senior officers identify gaps in their knowledge (direction); operators collect and analyse information accordingly; and the pertinent information is then disseminated to the relevant users in real time.

Turning this data into knowledge, however, requires it to be **structured** in useful ways. As people have a known tendency to use information to confirm pre-conceptions, managers may become overconfident in their ability and make sub-optimal decisions. To avoid this, the US Army identifies one independent individual in each unit (of roughly 175 members from across the organisation) whose job it is to challenge the organisation to improve its effectiveness. These “red-teamers” may also help reduce cultural biases and understand the opponent’s thinking.

Learning from previous mistakes is good, but sharing the acquired knowledge to educate the rest of the organisation is better. Pooling the lessons of past mistakes reduces uncertainty since it makes potential dangers known. The military promotes active learning and educating in a number of ways. First, military academies, think-tanks and academic journals work hand-in-hand to foster knowledge, raise questions and spark debates. Second, the military accepts that humans sometimes make mistakes, and encourages commanders to allow subordinates to learn from them. Third, Analysis After Action (AAA) is systematically used after every significant mission. This ‘debrief’ is not an evaluation; rather, it aims to identify how the mission could have been improved. This knowledge is then passed on to training centres and used to educate future “employees”.

But proper **communication** is required to grease the wheels of efficient learning. The armed forces avoid miscommunication by following structured templates for giving orders and key terms are standardised to avoid misunderstandings. For example, all NATO officers can understand the main components of a mission regardless of the language used to describe them.

Action required

Action-based solutions are used to mitigate the effect of uncertainty. This involves taking a systemic view of the whole organisation as a collection of parts that interact. The role of the leader is to act as a facilitator between the different parts of the organisation in order to ensure its smooth functioning. To this end, the army uses four further strategies.

Simplifying is key as recent research has shown that system efficiency declines as complexity increases. To address this issue, the army follows a simple structure for all its projects: 'a leader, some resources, an objective'. Keeping things simple ensures everyone is on the same page; decisions can be taken quickly; and misunderstandings are less likely to occur.

Decentralising decision-making gives military subordinates the capacity to analyse a situation and to act in uncertain situations. When centralisation is too great, the rigidity of the decision-making process can be crippling. Senior officers focus on creating and disseminating a doctrine to which subordinates can adhere. Principle-based management is significantly more effective than rule-based management in times of war. As General Patton once said, "never tell people how to do things. Tell them what to do and they will surprise you with their ingenuity."

Decentralising does not mean planning stops. **Planning** entails deciding on the strategic objectives, identifying the resources required, and delegating the execution. In order to avoid over-optimism about what is achievable with the available resources, commanders usually consider two scenarios: the most likely case and the worst case scenario. This pushes military leaders to consider a number of different outcomes, thus reducing the degree of uncertainty.

No matter what they do, organisations will be hit by unexpected hazards. An important aspect of uncertainty management is therefore knowing how to **build resilience** and respond when this happens. One way the army deals with unexpected shocks is to ensure 'serial incompetence': individuals are made to move regularly and across different areas in order to avoid ossified thinking and overly concentrated knowledge. This complements the team modularity approach that is systematically used and allows the organisation to function if any specific part is disrupted.

Kill the black swan

When negative surprises arise, we often dismiss them as ‘black swans’, freak events that no one could have anticipated. We blame fate for these, and absolve ourselves from our past responsibility. The approach followed by the military suggests that handling uncertainty in a structured framework is crucial to any organisation, insofar as it helps you react quickly and boldly to surprises despite incomplete information. This could be the difference between organisational life and death.

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