

**TECHNOLOGY LICENSING PRACTICES OF SOUTH  
AFRICAN MANUFACTURING COMPANIES :  
A PROFILE AND THE INFLUENCE OF SOME  
ORGANISATIONAL, TRANSACTIONAL AND  
CONTEXTUAL FACTORS**

by

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**SUMMARY**

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No comprehensive and systematic information about the multi-disciplinary, multi-functional technology licensing domain in South Africa was available. Yet South Africa was a net in-licensor paying royalties several times that received; its National Innovation Policy had as an important aim increasing technology linkages among firms; and licensing is widely recognized as a tool for technology transfer. Therefore a profile of technology licensing practices and the interaction between them, company and company milieu was obtained from South African manufacturing companies in all industry sectors through a cross-sectional exploratory survey by written questionnaire. Empirically established morphologies of the companies, of select aspects of their management and technology management practices, of their regulatory and enabling environment and of their technology licensing practices and preferences are presented. Attention is drawn to ostensibly disturbing phenomena and recommendations are made towards research to clarify several aspects and to improve licensing.

Learned authors have proposed mechanisms to improve licensing and its management. The question whether the influence of characteristics so postulated as drivers can be measured, confirmed and quantified arose and insights into postulated organisational, transactional and contextual drivers of licensing were simultaneously obtained and are presented for further consideration. These include pioneering and following, risk taking and conservatism, intensity

of use of national innovation funding, involvement in co-development and offset/countertrade, international experience, travel, management education, use of information, awareness of tacit information, attention to technology strategy and forward planning, intellectual property strategy, research and development and awareness of competitors' successes, failures and licensing activities.

Only companies that had or had had at least one patent or application or licence agreement were included to attempt to ensure the presence of some relevant knowledge. Statutory bodies, science councils, universities, merchants, the retail trade, technology brokers and individuals such as inventors were excluded. More than 300 initially selected companies were contacted by telephone to ensure qualification and to elicit cooperation and 188 questionnaires were sent out. In all 93 questionnaires were returned and 81 statistically processed.

Of the sample population 65% of respondents had licences. The sample average was 3,3 licences with the ratio of in- to out-licences at 1,7. Licence density with Europe was highest at 35% and within South Africa 31%. Out-licensing to Africa by the building materials and components, chemicals including paper and textiles and healthcare sectors was evident.

Intellectual property is mostly deployed in deterrence and monopolisation roles. Its planning seems to be neglected and further research into this and technology management strategy aspects within the broader framework of deployment of intellectual property is suggested.

In-licensing is driven by the need to obtain and hold market share through access to future and substitution of direct sales. Fear of revealing own know-how was notable as an inhibitor of out-licensing. Signs that South Africa could be characterised as technology colony were found; together with signs of emancipation. Lack of technology volume could be constraining licensing development and exploitation.

Early indications are that postulated determinant characteristics do have an effect and that this can be measured.

Keywords: Licence, manufacturing, technology, management, engineering, drivers,

intellectual property, patent, strategy.

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