PII
Pakistan Insurance Institute
Since 1951

The Scope of Automated Underwriting at Excel Assurance Ltd.

Nowsherwan Abdullah

CASE STUDY

The greatest danger in times of turbulence is not the turbulence – it is to act with yesterday's logic.

Peter Drucker

Ali Akbar, Head of Life Underwriting Operations at Excel Assurance, had a formidable task on his hands, he had to review the last quarter's operations performance and suggest changes to improve the productivity of operations sections of the company in the upcoming Operations Review Meeting. He looked at the Operations Review Dashboard with a rather apprehensive look on his face and then glanced at the file in front of him. This was the latest addition to the growing stack of disputed claim files lying on one of the file racks in the corner of his office; words from his heated discussion with the Head of Claims were still ringing in his ears. The majority of these disputed cases had been issued towards the tail end of the last five years. While the industry had been growing, churning out ever increasing number of insurance applications, the operations figures did not show a lot of promise. The number of underwritten applications had grown steadily over the last three quarters but so had the time spent on issuing every case. What was more worrisome for Ali was the alarmingly high Claims Ratio, quite fittingly displayed in a bold red font on his screen. Looking at the files he wondered if his current model of underwriting operations was still compatible with the changing needs of the company given the unprecedented growth the life insurance industry had been experiencing. Not only was the underwriting cost and efficiency becoming a cause of concern for the operations division, the high Claims Ratios recorded over the last two years raised questions regarding the efficacy of the current underwriting practice. Was the company losing more in an attempt to capture a greater market share? Was the current underwriting operations management in line with the company's strategic goals? Could Ali revamp the current process to make it more profitable for the company? Would the new process be effective enough to accommodate the changes necessitated by the recent but expectedly sustained growth in the life insurance industry?

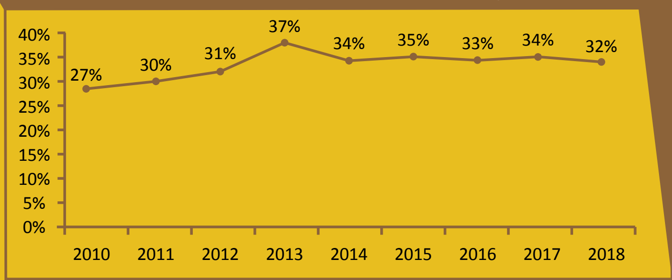
The Life Insurance Industry of Pakistan

Still suffering from the effects of mass nationalization four decades ago, the life insurance industry in Pakistan remained underdeveloped as compared to its peers in the region, up until the turn of 2010. The presence of a state owned entity and the rather stringent regulation deterred investment in the sector for two decades since denationalization. What hurt the industry more was the lack of awareness about life insurance and often its confusion as an investment tool. In the absence of any foreign investment and a concerted government effort, market penetration for life insurance remained disappointingly low making it a sales driven business.

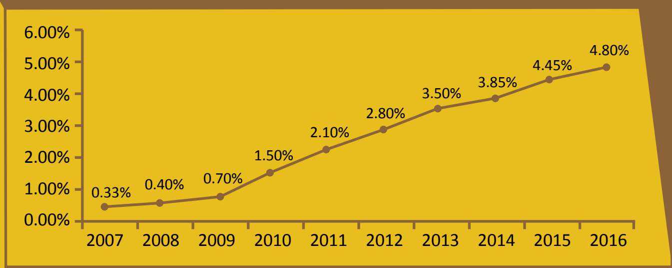
Things did take a turn for the better when the country's insurance regulator started implementing laws to promote the life insurance industry. The mandatory life insurance enrolment for all salaried persons was a welcome step, opening up avenues for greater demand. Though not entirely as successful as hoped, the government's new policy did come to compel the masses to understand the concept of and appreciate the importance of life insurance.

Ever since the regulation was passed in 2010, the industry had been growing steadily, posting growth rates in the mid 20's range. Between 2010 and 2013 the market penetration of life insurance had grown from 1.5% to 3.5%, growing constantly ever since, resting at 4.8% now. The regulation change had set the ball rolling and the sustained growth was expected to continue into the decade.

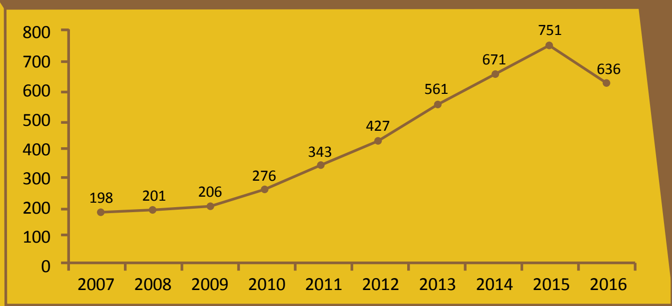
Growth Trend of the Life Insurance Industry of Pakistan



Market Penetration



Per Capita Expenditure on Life Insurance (PKR)



Excel Life Assurance Ltd.

Excel Life was the largest private sector life insurance company in Pakistan with a market share of 13%. Incorporated under the Excel Group, the company began individual life operations in 1989 and within 5 years accumulated an asset base of Rs. 500 million. Having cemented its place as an industry leader during the 90's, the company became a billion rupees premium Company in 1998. Having been a pioneer and industry leader, Excel Life took pride in its culture for fostering innovation. The company was the first to move towards paperless operations and centralized requirements express systems.

The company was divided into 4 cores, Strategic Management, Sales, Operations and Finance; each core led by an executive member of the board.

Underwriting Operations

Responsible for all policy lifecycle underwriting, the Underwriting Operations division was one of the three departments constituting the Operations core of the Company. Ali Akbar, an MBA from Kellogg School of Management, had taken over at the helm three years ago after having earlier worked as an underwriting manager for 3 years at Met Life Insurance. Having been entrusted with the responsibility of making the operations division more efficient to accommodate the growing business needs, Ali did not experience any internal resistance in the first year and a half. He made minor adjustments to the underwriting processes, automating redundant processes to cut costs and improve efficiency.

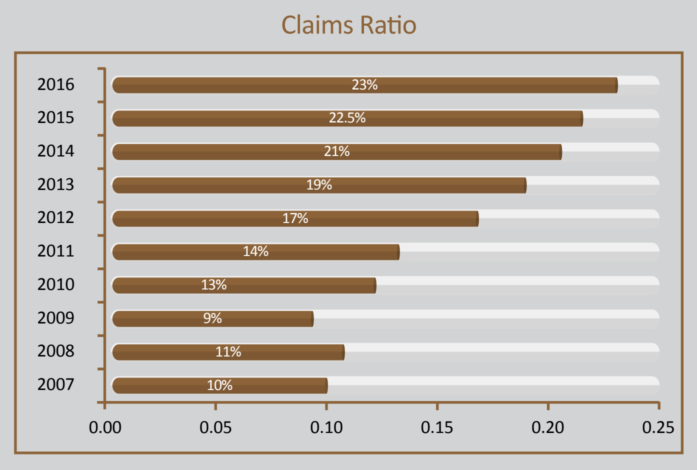
Since the introduction of the new regulations, the business volumes had increased steadily but the situation warranted a deeper analysis. While the number of insurance applicants had increased, the average face value of proposals was declining. With the current underwriting costs constituting about 50% of the policy issuance costs, the lower premium per policy was raising the underwriting cost relative to new business acquired. Another problem was the increasing average time spent on underwriting new proposals. Since business volumes had increased, the company hadn't been able to increase the size of the underwriting teams proportionately. Before the turn of the decade, an underwriter assessed an average of 21 cases in a day. Towards the end of a month, the number would typically rise to an average of 35 cases a day. The growth in business after the recent policy change meant that with the industry growth rate crossing 30% year after year, the number of cases to be assessed was increasing at a greater rate. Currently, the average number of cases underwritten by an underwriter was 34 whereas it jumped to in excess of 50 towards month end closings. Burdened with more cases to underwrite, underwriters felt fatigued, making rather menial errors while assessing cases. The average time spent processing a case was typically high towards the month end closing reiterating the intuitive notion that the errors were mainly due to the flood of new applications.

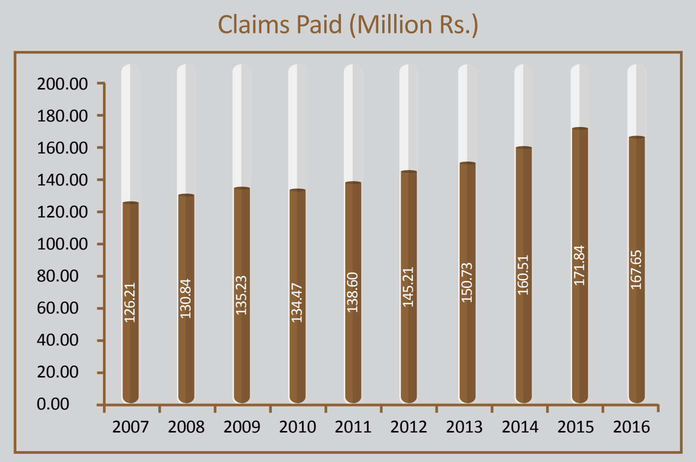
The most pressing issue faced by the Underwriting Operations division was the declining quality of underwriting. Much like in higher average processing time problem, overworked underwriters were making errors in medical assessments, causing a higher incidence of early claims in issued policies. The rather subjective and at times inconsistent decisions on cases were lowering the overall efficacy of the underwriting process.

Of Sales, Underwriting and Claims

Excel Life had historically maintained a Claims Ratio ranging from 10-14% which was one of the primary factors responsible for the unprecedented growth of the company in the initial years. The loss ratio had been creeping up over the last couple of years and the current year to date loss ratio stood at an all-time high of 23%.

Year	New Business Underwritten (Billions Rs)	Number of Policies	Average Processing Time per Case (min)
2007	1.40	35621	47
2008	1.61	37217	46.3
2009	1.70	39298	47.1
2010	2.30	43474	47.5
2011	3.00	46213	51.9
2012	3.21	51568	55.6
2013	3.53	57321	62.4
2014	3.79	63628	63
2015	3.92	67481	65.7
2016 (YTD)	3.10	47587	68.1





Every claims review meeting was characterized by verbal skirmishes and finger pointing, and long accounts of misgivings surrounding the underwriting standards. Dr. Asim Iqbal, having grown from within the company and now the head of the Claims Division, was more than dissatisfied with the current lapse in the underwriting standards. Satisfied with the prescribed underwriting guidelines, he was perturbed by the errors that were being made while following these guidelines. He had advocated a proactive stance on the need for a newer underwriting system that standardized decision making. More stringent review of cases would mean that more requirements would be called for in an attempt to control for anti-selection. The solution seemed intuitive but it essentially jeopardized the risk assessment process, by making it more invasive, something that would surely drive applicants away.

Ali's problem, however, was greater than just inconsistent decision making. While he had to ensure that his underwriters made standard, consistent decisions, he also had to ensure that the underwriting process did not seem invasive enough to drive out an already hesitant target market. The control for anti-selection came with a cost; the more requirements were to be called, the more hesitant would an applicant be in pursuing his application. The Head of the Sales core, Amjad Saleem had always remained critical of the seemingly stringent underwriting practices. Having joined the company as a sales trainee, Amjad had climbed the sales hierarchy, and hence always had greater affinity towards field underwriting. He had always remained censorious of the need to call for additional requirements to assess risk, often citing this as the reason for slower business growth. Amjad always posited that the underwriting guidelines were stringent, often making policy issuance a time and effort consuming act. Although Amjad was correct in citing stricter risk assessment guidelines a reason for driving applicants away, the underwriting process could not be relaxed, especially after the growing number of disputed claims.

Sipping his already cold coffee, shuffling between his computer screen and the claims documentation, Ali was stuck between two fundamentally different but valid considerations. While the underwriting process needed revisions essentially making it more stringent, stricter risk assessment practices would drive applicants away. The company's claims experience necessitated uncompromising risk assessment practices, whereas the growing sales potential of the industry required an underwriting process that did not seem invasive. He knew the time had come for him to make adjustments to the prevalent underwriting practice. While the cardinal purpose of the adjustments remained improving operational efficiency and consistent decision making, he had to ensure the systematic overhaul did not interfere with the sales aspect of a predominantly sales driven industry.

Realizing that his department and possibly his entire career were between crosshairs, Ali set to seek a solution to what seemed to be a multifaceted problem. The Operations Review Meeting was merely a couple of weeks away; Ali knew his recommendations needed to resonate with Amjad and Dr Iqbal. Having spent long hours at the office, having gone on days without seeing his kids, Ali was finally ready to present his proposals.

Operations Review Meeting

During the meeting, Ali presented two proposals before the management. His proposed solutions had a common premise; his underwriters needed more help. He could either increase the size of his teams or automate key processes to reduce the effort expended on each case by the more experienced senior underwriters.

Any implemented solution had to be sophisticated enough to accommodate the apprehensions of all stakeholders while being cost effective at the same time. The required investment for automated systems would significantly raise operational costs due to system development and testing whereas hiring more underwriters would require greater resources devoted to training.

Implementation Cost (PKR)	
Year 1	7,000,000
Year 2	3,000,000
Year 3	2,000,000
Annual Maintenance Cost	1,000,000

Current Number of Underwriters		12	Annual Training Cost (PKR)	Annual Salaries (PKR)
Number of Underwriters Required	Year 1	16	936,000	10,296,000
	Year 2	20	1,216,800	12,168,000
	Year 3	26	1,581,840	18,982,080
	Year 4	34	2,056,392	26,733,096

Total Time Saved per Annum	
Average Time Required per Task (Manual Underwriting)	68 mins
Average Time Required (Auto Underwriting)	50 mins
Time Saving per Task	18 mins
Number of Cases Processed (Auto Underwriting)	30,000
Total Time Saved	540,000 mins / 9,000 hours

Current Number of Underwriters		12	Annual Training Cost (PKR)	Annual Salaries (PKR)
Number of Underwriters Required**	Year 1	13	792,000	8,712,000
	Year 2	15	871,200	8,712,000
	Year 3	16	958,320	11,499,840
	Year 4	18	1,054,152	13,703,976

**With automated/assisted underwriting

Going Forward

All Operations core heads sat around the ovular desk, critically analysing Ali's recommendations. The life insurance industry was burgeoning, rapidly entering into the hyper growth phase. The growth in business was expected to continue if not accelerate at least into the next decade. Excel Assurance Ltd., a pioneer and an industry leader seemingly looked ready to capitalize on the regulation that had proved to be conducive to growth. However, the visible cracks were deeper than they appeared to be. The company's claims experience had continued to deteriorate over the last two years and the current performance was not very encouraging either. Analysis of the situation had revealed that human errors during the underwriting process had led to issuance of substandard risks leading to earlier than expected claims. There was a need to revamp the underwriting process; could it be done by hiring more underwriters? Or was there a better solution to be had?