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Let  $T$  be a positive kernel in a non-commutative  $L_p$ -space (with finite  $p > 1$ )  $E$  affiliated with a semi-finite von Neumann algebra  $A$  with a faithful normal semi-finite trace  $t$ . Let  $S(n)$  (with natural  $n$ ) be a superadditive process in  $E$ , that satisfies a condition that the limit of the infimum of the  $L_p$ -norm of the averages of the sums of the expressions  $(S(i) - T(S(i-1)))$  is bounded. Then we prove that the limit of averages of  $S(n)$  exists  $t$ -double-side almost everywhere in  $E$ . (Received August 13, 2005)